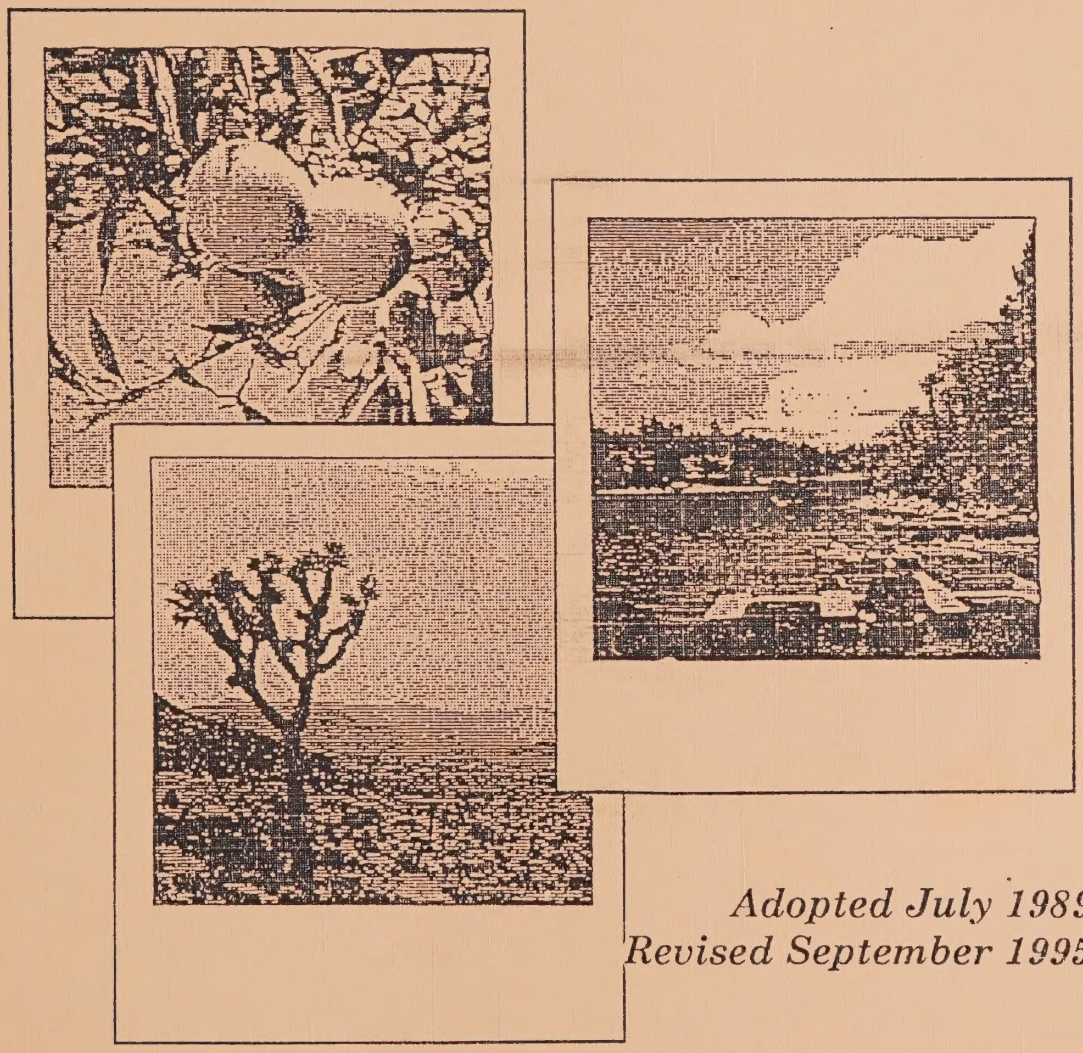
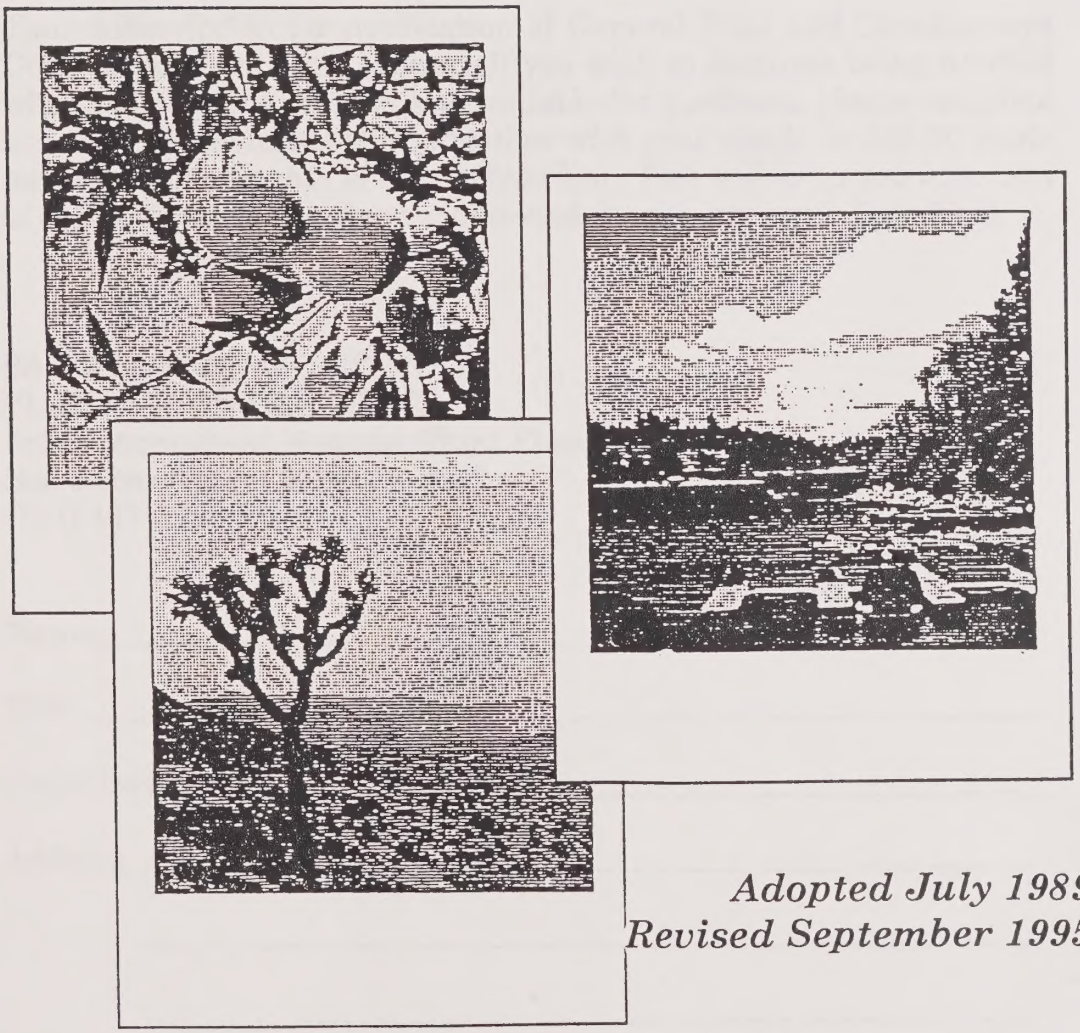
San Bernardino County General Plan



Adopted July 1989
Revised September 1995

Public Works Group
Planning Department

San Bernardino County
General Plan



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Planning Department

REGISTRATION FORM

January 1992 - June 1993

Your subscription for notification of General Plan and Development Code amendments has expired. If you wish to continue being notified when amendment packets are available for purchase, please complete and mail us the form below, together with your check for $25.00 made payable to the County of San Bernardino. This will keep you informed of any changes to the above mentioned documents until June 1993.

SAN BERNARDINO COUNTY
PLANNING DEPARTMENT
385 N. Arrowhead Avenue, Third Floor
San Bernardino, CA 92415-0182
(714) 387-3180

Name_____

Title_____

Organization_____

Address _____

_____

_____

Phone _____

We are very pleased to present the 1989 General Plan. Responding to rapid growth and many changes throughout San Bernardino County, this Plan continues the County's tradition of leading the nation in the application of progressive planning techniques.

The challenge of preparing a General Plan for the largest county in the United States is monumental. The contributing staff should be proud of their work. In addition, we have made every effort to integrate the opinions, beliefs and visions of its users, from citizens to decision-makers. It is as much your General Plan as it is ours.

It is important to remember the General Plan is a dynamic document. As the County changes, the General Plan must reflect and respond to that change if it is to remain effective. Therefore, your participation in this continuing process is vital and very much encouraged.

- Barbara Cram Riordan, Chairman
The Board of Supervisors
July 1989

San Bernardino County

GENERAL PLAN

Adopted July 1989
Revised August 1991

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Office of Surveyor

County Counsel

Transportation/Flood Control

CalTrans District 8

Fire Protection Planning Services

Forestry and Fire Warden

Economics and Community Development

Solid Waste Management

Airports

Chino Basin Municipal Water Dist.

San Bernardino Valley Municipal Water Dist.

Mojave Water Agency

Metropolitan Water District of So. California

Environmental Health Services

California Division of Mines and Geology

County Sheriff

Regional Parks

Special Districts

Agricultural Commissioner

Table of Contents

SECTION II - Planning Issues (Cont.)

SECTION III - Regional/Subregional Planning Areas

SECTION IV - Glossary

*Words that are **bold** in the text appear with their definitions in the Glossary*

Executive Summary

The General Plan is a constitution for development. It utilizes both text delineating policy and maps to provide a guide for land use. It represents a city's or county's official position on development and resource management. The position is expressed in goals, policies and actions regarding the physical, social and economic environments, both now and in the long-range future (5 to 20 years). To meet the state mandate and be found legally adequate, the following must be true of the plan.

- The plan must include seven State-mandated elements: land use, housing, circulation, open space, conservation, noise and safety.
- The plan must be internally consistent (that is, the General Plan policies and mapping must not contradict themselves or each other).
- The policies must be specific enough for application.
- The zoning must be consistent with the plan.

The General Plan is primarily a policy document with the land use section a major component of the plan. The section's graphic display, in the form of a land use map, usually focuses the attention of all interested parties. Because the map illustrates the plan goals and policies, it should not stand in isolation. The map forms an integral part of the Plan. Any changes made must include revisions to all affected portions of the General Plan.

In San Bernardino County, several factors indicated that an update of the existing plan was appropriate:

- The General Plan was adopted in 1979. The State General Plan Guidelines say "the entire plan, including the basic policies, should be thoroughly reviewed at least every five years and revised as necessary to reflect new conditions, local attitudes, and political realities."
- The legal adequacy of the existing plan was challenged.
- Numerous changes in state law and court decisions required general plan responses. For instance:

  - Recent court decisions held that the general plan had to be specific.
  - The plan's policies, data base and mapping had to permit clear and accurate application of General Plan policy at the parcel-specific level.
  - General Plan policy had to be more clearly linked with the systems that support and implement the Plan.

- There was a wealth of unused data resulting from inaccessibility. Many source documents needed centralization to provide an accessible, easy-to-use data base. A computerized data base, allowing flexibility and ease of use in the comparison of various data types, solved the problem.
- Pressures for the development of growth management techniques arose.

- Adjacent jurisdictions considered growth management legislation that could have affected the County.
- Jurisdictions and citizens within the County wanted growth management.

Accordingly, several objectives were established:

- To meet the requirements expressed in State and case law and produce a legally adequate Plan with internal consistency, consistency between the General Plan and the zoning and usable at the parcel-specific level;
- To maximize use of a computerized data base and mapping system allowing regular updating of the Plan.
- To create an environmental base assessment system that will make the environmental review process simpler and more effective.
- To make the Plan more regionally relevant, recognizing regional and community differences within the County;
- To create a usable plan that is clear, predictable and standardized.
- To design an official land use one map system (combined zoning/general plan) to simplify the existing dual system.
- To incorporate growth management techniques.

The General Plan Update process started in early 1987. In an effort to provide substantive policies that could be tied to specific mapping where possible, information and documentation for the plan were compiled in a series of background reports addressing both mandated and optional issues:

- Geology
- Fire
- Flood
- Wind
- Noise
- Aviation Safety
- Hazardous Waste
- Water Supply
- Water Quality
- Air Quality
- Open Space/Recreation
- Soils/Agriculture
- Biological Resources
- Cultural and Paleontological Resources
- Minerals
- Wastewater
- Solid Waste
- Transportation/Circulation
- Energy/Telecommunications
- Housing
- Land Use

These reports provide supporting data for the policies. Many County departments' staffs provided assistance and coordination. The available computer data base, expanded through digitizing existing and new data, helped establish a continuously updatable program. This computerized data base also helped to generate policy.

The issues addressed in the background reports were organized into four major categories: Natural Hazards, Man-made Hazards, Natural Resources and Man-made Resources.

Assessment of the goals and policies of the existing Plan determined their relevancy, currency, specific application, and completeness. Internal inconsistencies were identified and corrected. A solid analytic foundation was generated by rewriting vague and nonspecific policies. The collected data base and analysis formed the basis of the policies.

Revision of the mapping system also occurred as a Map Atlas was produced. The Map Atlas includes all digitized mapping components. It serves as a companion document to the General Plan text, relating the Plan's policies and actions to specific areas and locations in the County. The Land Use Map forms the basis of the mapping depicting the Official Land Use Districts, a "one-map" system.

Staff explored the feasibility of establishing a one-map system to achieve consistency with zoning. The system provided a practical solution. In the one-map system, the existing zoning, Community Plan land use districts and the General Plan land use designations merged to form the 14 Official Land Use Districts (OLUDs). The OLUDs, policy-based in the General Plan, also form the mapped land use designations for the regulations found in the Development Code. Once merged, a simple conversion procedure was applied. Where consistency between zoning and the General Plan occurred, the zoning prevailed. However, where inconsistency between the zoning and the General Plan occurred, the General Plan prevailed. In this way, land use entitlements remained unaffected for most areas. (To explain further, if an inconsistency existed in the past, some kind of discretionary action would have been required. If a change is requested under the new system, the requirement is the same.) The elimination of consistency problems is a result of utilizing the "one-map" system for the General Plan and zoning. All existing community plan and specific plan modifiers and future regional and planning area modifiers are called out on the land use map so that those policies dealing with specific areas can be ascertained easily. This system has the added benefit of simplifying the more cumbersome aspects of the plan, making it more usable and clear. In addition, the text establishes locational criteria for each of the Official Land Use Districts to provide assurance of compatible uses for adjacent property owners and predictability for developers.

The Map Atlas also includes four sets of overlay maps. These maps include the Hazard Overlay Maps, the Transportation/Circulation Overlay Maps, the Natural Resources Overlay Maps, and the Infrastructure/Improvement Level Overlay Maps. The existing system of overlays was retained, improved and expanded. All of the overlay maps incorporate existing General Plan and Community Plan maps and new information in a digitized computer data base for accurate and comprehensive mapping. Policies are tied to specific mapping, where possible, as follows:

- The Hazards Overlay Map covers seismic, landslide, flood, fire, noise and aviation safety areas.
- The Transportation/Circulation Overlay Map shows existing and proposed streets and highways.
- The Resources Overlay Map includes Mineral Resource Zones, cultural, paleontological and biological resources; open space/recreation areas; scenic highways; agricultural preserves; and important farmlands. These maps will be manually kept until they can be incorporated into the computerized mapping system.
- The Infrastructure/Improvement Level Overlay Map includes two phases: informational mapping of waste disposal sites, sewage treatment plants, public schools (in unincorporated areas), and homeless shelters, and the Improvement Level Mapping System. The Improvement Level Mapping System does the following:

    - Matches the intensity and type of land use with necessary infrastructure development.
    - Makes existing County policy visible, consistent and predictable (as opposed to project by project requirements of infrastructure under past systems.)
    - Reflects the differences in the three major County regions: Valley, Mountain and Desert.
    - Bases mapping on existing land use, projected land use, and community lifestyle commitment.
    - Ensures provision of adequate services for development.
    - Protects community character.
    - Phases development logically.
    - Provides a basis for Capital Improvement Programming.
    - Receives support from the Infrastructure and Growth Monitoring components of the ongoing General Plan Update effort.

- The Infrastructure Overlay System assigns a number from one to five to all properties within the County, corresponding to the infrastructure requirements (paving, curb, gutter, sidewalk, streetlights, sewers, water purveyor, fire protection, etc.) necessary for development.

The overlays, when read with specific policies in the text, delineate the constraints to development that have been identified. In an attempt to recognize regional and community differences, a system of regional and area plans will be developed as a part of the ongoing plan efforts. The scale of planning, relating to these levels, ranges from 20,000 square miles (Countywide), to several hundred square miles (Regional Statistical Area's), to several thousand acres (Planning Areas), to a variety of project sizes of much smaller scale.

The Valley, Mountain and Desert regions of the County all contain unique natural resources. These regions consist of many communities and individual economic, social and environmental needs, values and conditions. Therefore, each of the Desert, Mountain and Valley sections will be broken down further into subregions: the eight RSA's combining areas into groupings that have common characteristics. Each RSA will discuss the issues/elements to the degree and specificity that they apply to that area. Each issue contains specific policies, and where possible, these are applicable to mapped overlays.

A foundation section that describes the facts, assumptions and reasons for policy directives and implementing actions that follow comprise the policy sections. These policies are consistent with the Countywide goals. The RSA plans provide the detailed evaluation of specific land uses outside the scope of the initial update effort. A subset of the RSA plans will be comprised of the Planning Areas. Planning Areas include the old community plans, retaining special policies and modifiers unique to these areas, spheres of influence and other areas identified as requiring more intensive planning prior to development.

This Plan culminates a two year accelerated effort that allowed the major part of the General Plan Update to be completed. Certain refinements, however, will need to follow. This will include further refinement of the parcel specific inquiry and mapping system. Other improvements may also follow that will allow further utilization of the proposed system's capabilities. These refinements and improvements could continue over a five year period. Other projects of the ongoing update effort include a Countywide environmental data base system called the Master Environmental Assessment (MEA), the Infrastructure Assessment Program, and a Growth Monitoring and Forecasting System.

The Master Environmental Assessment establishes the current status or baseline of environmental resources from which to measure future projects and their respective effects. It may be used for future Initial Studies and Environmental Impact Reports (EIRs). Through the MEA, common environmental concerns and mitigation measures can be standardized. This continually updated system will allow for quicker preparation of California Environmental Quality Act (CEQA) documents which will be simpler and more efficient. Specifically, the proposed assessment system will include:

- A system that will facilitate in quantification of cumulative impacts on a regional and project-level basis.
- Standardized, accepted mitigation measures that can be applied readily at the regional, community and project level.
- Documentation of known problem areas and accepted mitigation practices specific to each area.

An Infrastructure Assessment Program, utilizing the expanded data base, will be developed as part of the ongoing Update. It will attempt to track infrastructure facilities, correlating them with both the Infrastructure Overlay System and the Development and Growth Monitoring System. It will help formulate a Capital Improvement Program, which is a fiscal formula for land use infrastructure and services.

The Parcel Specific Inquiry System is another future component. With this system, all information relevant to a parcel could be retrieved via computer terminals at the front counter. The information found in the Map Atlas eventually will be contained in a completely computerized, interactive database that will allow for computer retrieval of all General Plan information pertaining to any parcel of land in the County.

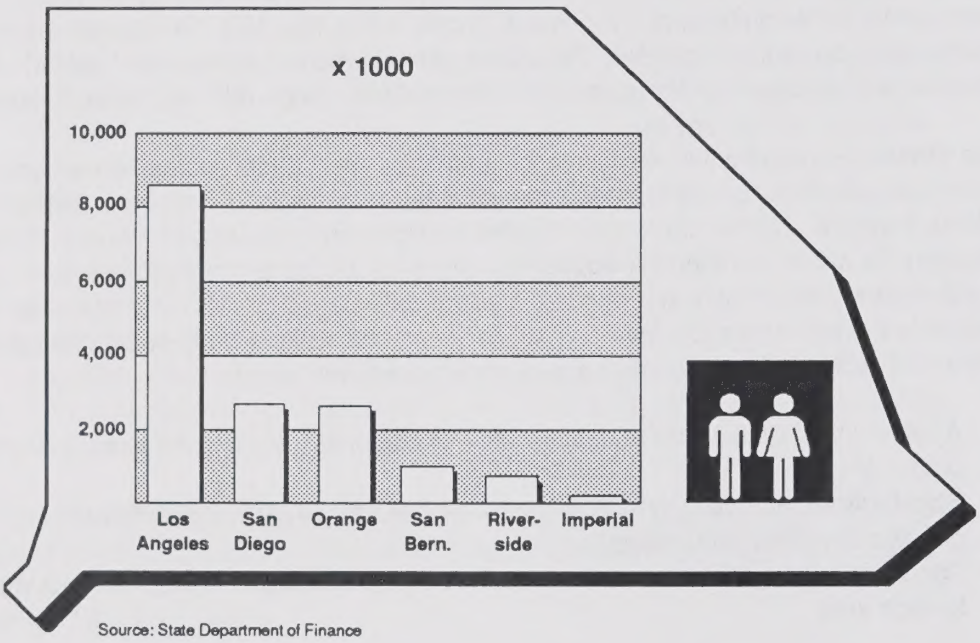
The Development and Growth Monitoring and Forecasting System will allow continuous monitoring and response to the pressures of development throughout the County. By

interfacing with the computerized data base, it will enable all components of the General Plan to be continually updated and responsive.

However, since the General Plan is not a regulatory document by itself, implementation must be carried out through a continuing series of ordinances, financing programs, capital improvement programs, and other official County actions. Swift enactment of these components will result in a more effective Plan.

If the system is regularly maintained, as called for by the policies in the Plan itself, and if the additional components of the ongoing Update program are completed, the plan will continue to serve as a useful guide to decision making. Comprehensive revision, such as the County has just completed, should never be necessary again.

In 1988, San Bernardino County was the fourth most populated county in Southern California.



Source: State Department of Finance

SECTION I

Introduction

A. PURPOSE OF THE GENERAL PLAN

B. PREPARATION AND APPROACH

C. CITIZEN PARTICIPATION

D. HISTORY AND BACKGROUND

E. COUNTYWIDE GOALS

F. IMPLEMENTATION

A. PURPOSE

The General Plan is the fundamental policy document for the unincorporated, privately-owned lands of San Bernardino County. Adopted by the Board of Supervisors, the General Plan:

- Contains the goals, policies, and implementing actions for a variety of issues including natural and man-made hazards and natural and man-made resources.
- Sets the framework for decision-making regarding the County's long-term development and utilization of resources.
- Provides the data and analyses to support that decision-making framework.
- Provides the rules by which land can be developed (what, where and under what conditions).
- Provides a consensus vision of what the citizens and Board of Supervisors want for the County's future.
- Establishes the operating rules for achieving that vision.

The Plan is adopted according to California State Law (Government Code 65300 et. seq.) and consists of both text and maps. It is a comprehensive document that must address seven mandatory elements or issue topics. Those elements are Land Use, Housing, Circulation, Conservation, Open Space, Noise and Safety. Other optional issues that affect the County are also allowed and have been included in the Plan.

B. PREPARATION & APPROACH

The County initiated a multi-year update to its 1979 Consolidated General Plan in January of 1987 in order to respond to the challenges of development and resource issues, meet new State legal requirements and take advantage of new planning technologies. The initial two-year update effort led to preparation of this document. Additional improvements will continue to be made, allowing future Plan components to be integrated and implemented as necessary. Proposed inclusions are a Development and Growth Monitoring System, an Infrastructure Assessment Program, and a Master Environmental Assessment.

The Plan was prepared by County staff with assistance from several specialized consultants. A major component of the process involved creation and analysis of a computerized geographic data base to provide support for the clarification, addition and modification of previous Plan policies. In addition, detailed background reports were prepared for the mandatory General Plan elements as well as other relevant issue areas. These reports will be followed by more specific analysis and quantification, eventually leading to creation of a Master Environmental Assessment (MEA). The MEA will present a detailed inventory and description of the existing conditions of the County's natural and man-made resources and hazards. It will also contribute to the foundation of policy and action choices as well as environmental review and findings.

The initial two-year effort to update the 1979 Plan was not intended to provide completely new or detailed community-level land use studies or plans. Instead, it was intended to be an update of the existing "countywide" policies and land use planning system, setting the framework for future local/regional subarea planning based on a continually-updated data and policy base.

Objectives of the General Plan Update are to:

- Provide a legally adequate plan.
- Create a format that is easy-to-use and update.
- Develop an accessible and easy-to-update database to support proposed policies and monitor progress toward objectives.

Following the California Environmental Quality Act (CEQA) and its Guidelines, an Environmental Impact Report (EIR) was prepared for the Plan. This document discusses the impacts which could occur to the physical environment as a result of implementing or carrying out the Plan. It also identifies steps which can be taken to reduce or eliminate any negative impacts.

The policies and components of the Plan were reviewed by a number of agencies and technical groups including the Airport Land Use Commission, County Highway Planning Technical Committee, County Environmental Review Committee and the State Department of Housing and Community Development.

Updating the General Plan involved several goals, including:

- Meeting the requirements of State general plan law.
- Designing a policy framework for future land use plans.
- Recommending changes to existing policies and maps based upon new data affecting health/safety, resource/ environmental and infrastructure constraints.
- Recognizing existing land use commitments and plans as much as possible.
- Utilizing growth management strategies including emphasis on city/urban infilling, development/annexation within city spheres of influence, and requirements for the appropriate, timely provision and efficient use of infrastructure.
- Recognizing other jurisdictional plans and standards as much as possible;
- Linking maps with specific textual policies.

The following list of factors was considered in creation of Land Use District and Improvement Level "locational criteria" and in recommending map amendments:

- Federal and State laws
- Public/private land ownership - jurisdictional control
- City and/or regional agency management plans
- Existing Zoning and General Plan land use designations
- City sphere prezoning/general plan land use designations
- Community or specific plans, existing or underway
- Manmade and Natural Hazard Constraints
- Natural Resource Constraints/Opportunities
- Infrastructure/Service Constraints/Plans
- Nonconformance/Compatibility of existing uses or approval
- Potential Land Use District buildout impacts
- Existing lot sizes/patterns
- Proximity to urban areas/cities
- Growth Management Strategies
- Job/housing balance
- Population/housing growth and need projections
- Amount of vacant and developable land available
- Desires of community/commitment to lifestyle
- Desire of property owners
- Updated policies/actions

C. CITIZEN PARTICIPATION

During preparation of the updated Plan, various methods of public involvement were used. These included:

- General Plan Update Review Committee

  A 28-member committee authorized by the Board of Supervisors to review and comment on the Plan's report and proposals. Members represented a variety of geographic and interest groups. Several meetings were held and written comments were received and considered in the final plan recommendations.

- Public Information Program

  A combination of events and products over the initial two-year update period including: a video tape and printed briefing guide describing the Update process that was distributed to a variety of interested groups and individuals; a widely-distributed series of four newsletters describing various Plan issues and components; a survey/questionnaire feedback form to allow public written input regarding prioritization of Plan issues; press releases; and public service announcements regarding the Plan.

- Board of Supervisors/Planning Commission Workshops

  Several public workshops with the Board and Commission were conducted to allow public discussion on a variety of Plan issues. General direction and philosophy of the decision makers were then incorporated into the planning process.

- Public Hearings

  Before its adoption, numerous advertised public hearings were conducted over a four month period by both the Planning Commission and the Board of Supervisors regarding the Plan and its Environmental Impact Report.

D. HISTORY & BACKGROUND

In 1979, the Board of Supervisors adopted the Consolidated General Plan and Implementation System, replacing the 1966 General Plan, approximately 40 separate "Community General Plans" and several individual plan elements prepared through the years.

In 1980, the Development Code revised the previous zoning ordinance and created the Community Plan System of land use districts (zoning). Fifteen community or specific plans were then adopted through 1988. It was intended that eventually every unincorporated community (about 50) would have a detailed plan.

As the number of completed community plans grew, it became more apparent that a less diversified system was needed that would be simpler to use and maintain. In addition, there were new judicial interpretations of General Plan Law in California indicating that more specific, less interpretable General Plans were required to meet requirements for a legally adequate planning document.

As new State General Plan requirements were added, some San Bernardino County elements were significantly amended, including the Housing Element in 1981 and 1986. The land use element maps were also amended as new development proposals were considered. The new systems contained in this Plan standardize and replace the old zoning system as well as the community plan districts and overlays. Improvements to the Planning System have been coordinated with revisions to the Development Code.

E. COUNTYWIDE GOALS

The following are Countywide goals. They are meant to be general and represent an ideal future condition to which planning implementation measures are directed. Goals expressed for various issues in Section II of this plan provide guidance and objectives for specific combined policy/action statements.

1) A reasonable "quality of life", defined as a healthy, safe and quiet living, working and recreational environment including the land, water and air.

2) Conveniently available, adequate and efficient services and infrastructure provided in a timely fashion and funded by those who benefit from them.

3) An available, well-maintained, diverse, and affordable housing stock for all segments of society.

4) A growing and balanced economic structure.

5) An environmentally sensitive and balanced level of natural resource utilization and preservation emphasizing conservation strategies.

6) A fiscally sound, compatible, and balanced land use mix and distribution recognizing long-term commitments to rural and urban lifestyles and growth management strategies.

7) Attractive, aesthetically pleasing and identifiable communities recognizing local and unique characteristics and development standards.

8) Adequate, available and usable open space and recreational opportunities.

9) Protected historic, archeological and other cultural sites and resources.

10) A cooperative working relationship with all jurisdictions and agencies operating in the County to address regional issues.

11) Protected viable agricultural soils/uses, sensitive habitat, biota and other natural resources.

12) Balanced management of all wastes, integrating a variety of disposal, reduction and conversion methods.

13) Annexed and incorporated urban areas and/or utilization of compatible standards for spheres of influence.

F. IMPLEMENTATION

1. Organization, Format & Structure
2. Relationship to Other Documents
3. Use & Ammendment
4. Annual Review & Update
5. Annual Budget
6. Coordinating Land Use Decisions

1. Organization, Format & Structure

TEXT

State law requires that the General Plan include seven mandatory elements but allows flexibility in how these elements are structured. Figure I-1 describes the organization of the San Bernardino County General Plan, illustrating how its twenty planning issues and five series of maps correspond to the State's seven mandated elements. (Note that many planning issues overlap and are addressed by more than one mandated element.)

Each major issue and its subissues are briefly summarized in the Plan document, usually including:

- A statement of the facts or findings about the issue that provides a foundation for policy and action.
- Goals for each issue.
- Policies and actions, in combined form, that clearly describe the supporting data and/or underlying rationale for each.

Whenever possible, policies are referenced directly in the adopted Plan Maps contained in the Map Atlas (under separate cover). This allows General Plan users to quickly and easily determine the policies and actions which apply to a particular area or parcel of land.

MAPS

The five series of maps contained in The General Plan Map Atlas are:

- Land Use
- Resources
- Hazards
- Transportation/Circulation
- Infrastructure/Improvement Level

LAND USE MAPS

The Land Use Maps depict parcel specific Land Use Districts, such as Single Family Residential (RS) and Rural Living (RL), which along with the text contain the types and intensities of uses, lot sizes, densities, development standards, and the conditions under which the uses are allowed. The Map also identifies unique "Planning Areas" or modifiers which may have special development standards applied. The Land Use Map is adopted by resolution and ordinance as both Plan policy and regulatory zoning as part of a new "one map system." The need for a separate and consistent zoning map has been eliminated, as zoning and general plan land use districts are now one and the same.

Figure I-1
Organization of the General Plan

	REQUIRED GENERAL PLAN ELEMENTS						
COUNTY PLANNING ISSUES	Land Use	Circulation	Housing	Conservation	Open Space	Noise	Safety
Geologic							●
Flood	●	●			●		●
Fire							●
Wind/Erosion				●			
Noise						●	
Aviation Safety	●						●
Hazardous Waste	●						●
Water		●		●	●		●
Open Space/Recreation	●			●	●		
Biologic				●	●		
Soils/Agriculture	●			●	●		
Minerals				●	●		
Air Quality				●			
Cultural	●			●			
Wastewater Systems		●		●			
Solid Waste Management	●			●			
Transportation/Circulation		●					●
Energy/Telecommunications		●		●			
Housing/Demographics	●		●				
Land Use	●				●		
MAPS							
Land Use	●		●	●	●		●
Hazards	●			●	●	●	●
Resources	●			●	●		
Circulation		●					
Infrastructure/Improvement Level	●	●		●			●

NATURAL RESOURCES OVERLAY MAPS

The Natural Resources Overlay Maps will depict the following:

1) Biological Resources - Habitat areas of threatened, endangered and rare plants and animals and special habitat areas, as identified by federal and state agencies and county code.

2) Cultural Resources - Archaeological and historic resources as identified by the County Museum Archaeological Information Center.

3) Paleontological Resources - Areas identified by the County Museum Curator of Earth Sciences as having known or potential resource sensitivity.

4) Open Space/Recreation/Scenic Resources - Regional Trail Alignments, Open Space Policy Areas, Wildlife Corridor Zones, Greenbelt Areas, Buffer Areas. Open space may also be shown as areas mapped for fire, seismic and flood hazards, scenic routes and institutional designations.

5) Important Farmlands - Areas designated in the Important Farmland Map Series.

6) Agricultural Preserves - Areas designated as Agricultural Preserves by the Board of Supervisors.

7) Mineral Resource Zones (MRZ) - Areas mapped by the State Geologist are classified, designated, and identified as mineral resources areas.

At the present time, these overlay maps are incomplete and will be manually kept until the automated overlays are available.

HAZARDS OVERLAY MAPS

The Hazards Overlay Maps depict areas of known hazards, both natural and man-made. They include the following:

- **Geologic**

  - Seismic

    Alquist-Priolo Special Studies Zones - Those areas of known active or potentially-active faults that have been studied and mapped by the California Division of Mines and Geology. These include, but are not limited to, areas presently within the Alquist-Priolo Study Zones series which are used as a guide to more precise geologic investigations when land is subdivided or developed. (Other areas of active faults will be included when identified, studied and mapped.)

    Liquefaction - Areas where a combination of high groundwater, sandy soil types and a high degree of seismic activity combine to form a high susceptibility to liquefaction, as identified by the California Division of Mines and Geology.

- Landslide/Mudslide

  Areas identified as having existing landslides or highly susceptible areas, as identified by the US Geological Survey. An ongoing mapping process will identify and include more areas as studies are completed.

- **Flood**

  Those areas identified as Floodplain areas (within the path of a 100 year flood) by the Federal Emergency Management Agency on Flood Insurance Rate Maps. Floodway areas are shown on the Land Use Maps as a separate Land Use District, since development is precluded in the Floodway (FW) District.

- **Fire**

  All those areas subject to wildland/urban intermix and high fire hazard, as identified by the County Fire Warden, including but not limited to areas previously designated in Mountain Fire Zone, and the Hillside and Foothill Fire Hazard Zones.

- **Noise**

  Aircraft Noise Contours are the only noise contours shown on the Hazards Overlay Maps at this time. Tabulated contours for both traffic and railroad noise are found in the complete Noise Element (under separate cover).

- **Aviation Safety Areas**

  These are in many cases, concurrent with the Aircraft Noise Contours and are more extensively explained in Section II-B, policies on Aviation Safety. Included are all areas affected by the Federal Aviation height limitations imposed by Part 77 of the Federal Aviation Regulations. These outlines generally identify areas influenced by operations within all public airports operating within San Bernardino County and its cities. They provide an initial basis, in many cases, for more precise delineation of airport land use planning areas administered by the Airport Land Use Commissions of San Bernardino County.

- **Hazardous Waste Overlay**

  Those areas where a Hazardous Waste Facility has been approved. The Hazardous Waste Overlay District is applied to ensure that hazardous facilities are sited in areas that protect public health, safety, welfare and the environment, to buffer hazardous waste facilities so that incompatible uses cannot be permitted in the future, to identify permitted uses of the overlay, and to outline the permit review procedures.

While this list provides a complete list of mapped hazards now available, other hazards may be added as studies are completed and additional hazards mapped. (See Section II, A and B, Policies.) These maps show areas where a reasonable concern is indicated. However, the sources for this data were generally mapped on USGS quad sheets and

are, therefore, not parcel specific. Each overlay has a varying degree of accuracy which is noted on the overlay maps.

TRANSPORTATION/CIRCULATION MAPS

The Transportation/Circulation maps utilize a computerized mapping system developed by the Land Management Department's Data Systems Section. The maps are based on a street network which is a representation of streets and administrative boundaries organized into a computerized mapping and information system. The street network represents all streets within San Bernardino County, including incorporated cities.

The hierarchy of roads and highways is shown in tabular form (Policy TC-1) in Section II-D, "Transportation/Circulation." Road designations on the maps indicate the ultimate planned road facility. A road shown as "existing" indicates that there is an existing road on the ground. However, the existing road may not necessarily be built to its ultimate width A road shown as "proposed" indicates that there is no road on the ground at present. Typical section drawings, showing County standards for the highways described below, are available from the County Transportation Department.

The Major Arterial Highway, Major Divided Highway, Major Highway, Secondary Highway, and Controlled/Limited Access Collector designations generally apply only in the Valley and Desert areas of the County; in some cases these highways are utilized within the Mountain areas of the San Bernardino National Forest, as in the case of State Highway 138. The Mountain Major Highway and Mountain Secondary Highway designations apply only within the National Forest boundaries of the San Bernardino and San Gabriel Mountains. Freeways and State Highways with special standards or conditions can apply anywhere. State Highways which utilize County right-of-way standards will be shown using the appropriate County designation. Only those State Highways which do not fit into one of the County's designations will be shown as a "State Highway (special standards or conditions)." An example of this is State Highway 173 from the Lake Arrowhead area to Hesperia, which is a two-lane dirt road with no improvements planned by Caltrans.

- "Freeway" designation right-of-way requirements are established by Caltrans and are variable.

- "Major Arterial Highway" is intended to replace the Major Divided Highway designation for future highways. There are two options for the Major Arterial Highway. The first option is a six-lane facility with a raised median to act as a divided highway which restricts left turns; this will be utilized in areas with high volumes of traffic. The second option is also a six-lane facility with a continuous left turn lane in the center; this will be utilized in areas with lesser traffic volumes where growth is planned, with the option of converting the facility to the raised median when traffic volumes increase.

- "Major Divided Highway" designation is a four-lane facility (six lanes are optional) with a raised median to restrict left turns. However, it is intended that no new roads will be built to this standard in unincorporated County areas. This designation is used to indicate existing Major Divided Highways.

- "Major Highway" designation is a four-lane facility with two options which are the same as the Major Arterial Highway, i.e., with a raised median or a continuous left turn lane. A six lane option is also possible.

- "Secondary Highway" designation is a four-lane highway with center striping, and there is no option for a divided highway.

- "Limited/Controlled Access Collector" is a two-lane highway with access restrictions. No direct access shall be permitted onto Limited/Controlled Access Collectors from the driveways of individual residences. To accomplish this, access rights shall be dedicated to the County as development occurs. This will enhance the flow of traffic and these roads will function much more efficiently.

- "Mountain Major Highway" and the "Mountain Secondary Highway" are four-lane and two-lane facilities, respectively, and apply only in the Mountain area within the National Forest boundaries.

The basic function of the routes on the Transportation/Circulation Element maps is to indicate major transportation corridors, both existing and proposed, as they relate to each other and to planned land use districts and health and safety features. They also serve as a guide to offers of dedication and improvements to rights-of-way, either in advance of need or as development occurs. Rail facilities and passenger stations (Amtrak), public use and military airports, bus terminals, and Park and Ride facilities are also delineated.

INFRASTRUCTURE/IMPROVEMENT LEVEL MAPS

The combined Infrastructure/Improvement Level maps show the general location of waste disposal sites (both County and non-County operated), sewage treatment plants, public schools (unincorporated areas only), homeless shelters in operation as of February, 1988, and the Improvement Level (IL) areas 1 through 5 which are explained in Section II-D, "Land Use/Growth Management."

The IL areas are tied to the availability of the basic infrastructure required for development (roads, water, and wastewater facilities). Required levels of service are established for all areas ranging from the most intense urban areas (IL 1) to the least intense rural areas (IL 5). Before development can be permitted to the degree allowed by a site's official land use designation, existing or planned infrastructure must be in place at levels consistent with the designated IL areas.

The waste disposal sites shown on the maps are listed in Section II-D, "Solid Waste Management." Sewage treatment plants or facilities which appear on the maps are listed in Section II-D, "Wastewater Systems." The full listing of all the homeless care providers will be contained within the appendices of the 1989-1994 Housing Element. Additional infrastructure/public service facilities may be added to the maps through the General Plan Amendment process.

Eventually, a completely computerized parcel base and overlays will allow electronic retrieval of all applicable General Plan data and policies relevant to individual parcels. As

part of the development of this service, a combination of manual and automated components will evolve over the next several years.

INTERPRETATION OF THE GENERAL PLAN

MAP BOUNDARIES AND SYMBOLS

In any case where uncertainty exists regarding the location of boundaries of any land use category, proposed public facility symbol, circulation alignment or other symbol or line found on the official maps, the following procedures will be used to resolve such uncertainty:

1) Boundaries shown as approximately following lot lines, shall be construed to be following such lot lines.

2) Where a land use category applied to a parcel is not mapped to include an adjacent street or alley, the category shall be considered to extend to the centerline of the right-of-way.

3) Boundaries shown as following or approximately following the limits of any municipal corporation shall be construed as following such limits.

4) Boundaries shown as following or approximately following section lines, half-section lines, or quarter-section lines shall be construed as following such lines.

5) Boundaries shown as following or approximately following railroad lines shall be construed to lie midway between the main tracks of such railroad lines.

6) Boundaries shown as following or approximately following shorelines of any lakes shall be construed to follow the mean high waterlines of such lakes, and, in the event of change in the mean high waterline, shall be construed as moving with the actual mean high waterline.

7) Boundaries shown as following or approximately following the centerlines of streams, rivers, or other continuously flowing water courses shall be construed as following the channel centerline of such water courses taken at mean low water, and, in the event of a natural change in the location of such streams, rivers, or other water courses, the zone boundary shall be construed as moving with the channel centerline.

8) Boundaries shown as separated from, and parallel or approximately parallel to, any of the features listed above shall be construed to be parallel to such features and at such distances therefrom as are shown on the map.

9) Symbols that indicate appropriate locations for proposed public facilities are not property specific. They indicate only the general area within which specific facility should be established.

SPECIFIC STANDARDS

Where a specific numerical standard is set forth in this Plan, that number is an interpretation of the underlying policy and may be varied in application provided that the standard that is varied is found to achieve the same goal as the underlying policy.

2. Relationship to Other Documents

The General Plan document references and is referenced by several companion documents some of which are adopted as part of the actual General Plan. It also relies upon several data systems for maintaining its up-to-date status. These documents and systems are listed and briefly described below.

BACKGROUND REPORTS/MASTER ENVIRONMENTAL ASSESSMENT (MEA)

Twenty planning issues that affect the County were examined in detailed background reports. These reports will be incorporated into the MEA. When completed, the MEA will provide a detailed description of existing conditions, methods of calculating impacts upon resources and potential policies and mitigations to be utilized to lessen negative impacts. The MEA/Background Reports are dynamic (updatable) documents which will be used to support and monitor the Plan and simplify future environmental reviews.

COMMUNITY PLANS FOUNDATION SECTIONS

Several subarea zoning plans had been adopted by the County as part of a "Community Plan" system initiated in 1980. These "Community Plan" land use districts and overlays have been standardized and made part of the Updated General Plan. Unique community policies, as identified in each Community Plan "foundation section," have been retained and adopted as part of the General Plan and are delineated by "planning area modifiers" on the Land Use Maps. There are several community or regional planning areas identified for which detailed planning studies will need to be prepared in the future. Several "Community General Plans" and separate General Plan Elements were previously consolidated into the 1979 Countywide General Plan and are no longer in effect.

SPECIFIC PLANS

Specific Plans are unique subarea plans that may be adopted by the County. They are a regulatory tool used to implement the General Plan. They include special financial, environmental and developmental procedures. Each Specific Plan is a stand-alone regulatory document. Specific Plans have been prepared for Chino Hills, Agua Mansa and the East Valley Corridor.

COUNTY SOLID WASTE MANAGEMENT PLAN (CoSWMP)

The current CoSWMP, adopted in 1986, is the primary planning document for solid waste management. State law requires that solid waste management plans be consistent with the General Plan, and be updated every three years. Solid waste management policies in the General Plan have been formulated from the current CoSWMP update effort; these policies will be revised as necessary to ensure

consistency between the two documents. The CoSWMP is not a part of the General Plan.

HAZARDOUS WASTE MANAGEMENT PLAN

The Hazardous Waste Management Plan (HWMP) is the County's primary planning document for hazardous waste management. Among other items, it must include policies for the siting of facilities. This plan is integrated into the County's General Plan Background Appendix. In addition, applicable policies from the HWMP are also contained in the Hazardous Waste section of the General Plan.

CAPITAL IMPROVEMENT PROGRAMMING

Within the County, many public agencies are involved in preparing capital improvement programs (CIPs). Capital improvement decisions are made by the Board of Supervisors with support of the County Administrative Office. CIPs consist of a schedule of anticipated expenditures for facilities such as sewers, roads, parks, and storm drains. The presence of such facilities greatly influences the direction, timing and character of growth. The General Plan provides the impetus for coordination of growth and capital improvements. Planned development improvements, as shown on the Infrastructure/Improvement Level Maps, indicate a long term commitment to planned levels of urban or rural type services. Capital improvement programs, and any amendment to them, must be consistent with the General Plan pursuant to Government Code Sections 65103, 65401, and 65403.

JOINT UTILITIES MANAGEMENT PLAN (JUMP)

The Joint Utilities Management Plan was adopted by the Board of Supervisors in 1976. JUMP provides a comprehensive set of policies and programs relating to facility siting, energy conservation, alternative electrical generating technologies and local participation in energy related decisions. The siting criteria checklist and siting analysis maps of JUMP are adopted by reference into the General Plan.

SEPARATELY BOUND ELEMENTS

Two Planning Issues, Housing/Demographics and Noise, including detailed technical appendices, are also adopted as part of the General Plan. While policies/actions and some supporting data and analysis are contained in the Plan text, the complete documents are under separate cover.

BACKGROUND APPENDIX

The Background Appendix is a compendium of supporting data for each issue addressed in the Update. Although located under separate cover, it is an adopted part of the General Plan Update.

DEVELOPMENT MONITORING/FORECASTING SYSTEM

When complete, the Development Monitoring/Forecasting System will provide up-to-date information as to where and how fast development approvals and building are occurring. It will also allow for the aggregation/disaggregation of population estimates and forecasts. This information can then be used for analysis of projected impacts upon infrastructure and to help implement General Plan policies.

INFRASTRUCTURE NEEDS ASSESSMENT MODEL

Several preliminary models have been prepared which are designed to assess the balance between the supply and demand for infrastructure. When completed, these models should be able to determine the existing and projected demand for services such as streets, sewer and water. This information can then be used to amend plans or capital improvement programs and/or charge fees to help in the orderly provision of services, thus implementing the General Plan.

ENVIRONMENTAL IMPACT REPORT

An Environmental Impact Report (EIR) has been prepared, and certified concurrently by the Board of Supervisors, for the General Plan Update. The EIR analyzes the impacts of the Plan's proposals and alternatives on the physical environment and identifies methods to mitigate negative effects. All feasible mitigations have been incorporated into General Plan Policies.

DEVELOPMENT CODE (SAN BERNARDINO COUNTY CODE, TITLE 8)

The Development Code implements State mandated planning law and General Plan policies through the adoption of land use regulations which establish reviewing authorities, standards, procedures and penalties that are adopted as an enforceable ordinance. These regulations have been updated in conjunction with, and in support of, the policies and programs established by the updated General Plan.

REGIONAL PARKS STRATEGIC MASTER PLAN

The Master Plan establishes the goals and objectives which will guide the County Regional Parks Department in meeting its future responsibilities; it establishes procedures and identifies means for creating and funding new parks with a strong focus on public participation; and it establishes Regional Park planning for new facilities at existing parks and developing funding for new parks. The Master Plan is not part of the General Plan, but rather a companion document which supports and implements policies and programs established by the updated General Plan.

3. Use & Amendment

The plan text and maps are meant to be used in conjunction with one another. When possible, issues and subissues identify policies as they relate to the land use/overlay maps in the Map Atlas document. Some subarea modifiers or supplemental policies are also identified in the text. These are used in special situations such as Regional or Subregional Planning Areas.

Any amendment to the Plan text or maps must be reviewed by the Planning Commission and be adopted by the Board of Supervisors. By law, the Plan may only be amended a maximum of four times a year (several changes may be grouped into each amendment). The Board of Supervisors or any citizen may apply to amend the Plan text or maps. Requests are reviewed by both the Planning Commission and Board at public hearings and the impacts which would result from implementation are studied by staff to determine whether the proposal should be supported in order to ensure a compatible and consistent General Plan document. Any proposed change in the Land Use maps must be consistent with the criteria and conditions of the text.

PROCESSING OF AMENDMENTS

General Plan amendment requests will be processed in accordance with State Planning Law, CEQA and the County Code. There are three categories of GPA's, with each type being of greater complexity to review and process in accordance with state requirements. There will be a range of deposits that reflect the cost of processing each type of application. The three types of GPA's will be categorized as Major, Minor and Technical amendments.

1. Major

Major Amendments are any changes to the goals, policies or actions that would alter the basic policy directions previously set forth within the Plan. A Major Amendment is also a change that would create substantial extension of an OLUD, expanding urban areas and creating the need for extensions of urban services. (Expansion of urban areas is defined as any extention of rurban (IL 3) into urban (IL 1&2), or rural (IL 4&5) into rurban or urban areas).

Major Amendments will be Board-initiated. Requests for initiations will be heard three times a year. Any applicant requesting such an amendment will be required to first file an application for Board action to formally initiate the amendment. After Board initiation, a major amendment application may be filed with the Planning Department by the applicant.

2. Minor

Minor Amendments will be considered by the Board of Supervisors on an ongoing basis. Minor Amendments are mapping of textual changes that do not create the need for extension of urban services to an area. Requests for changes to Improvement

Level Designations may be included in this category only if the proposed change does not cause an alteration to rural, rurban or urban area boundaries. This would mean that a request for an Improvement Level change from IL-5 to IL-4 would be considered minor but IL-5 to IL-3 would be considered major.

3. Technical

Amendments of this nature will essentially be changes to the data base and statistics used in preparation of the Plan, changes to correct textual errors and changes within the text to clarify the meaning of policies and actions as adopted. These will be processed on an ongoing basis.

4. Annual Review & Update

The General Plan is intended to be a dynamic and responsive document. As conditions change, so must the Plan. An annual review and update is suggested. Government Code Section 65400(b) requires an "annual report on the status of the plan and progress on its implementation." This would bring relevant components and data up-to-date. It would also ensure that all policies remain internally consistent, that they are supported by data and that they are coordinated with the various implementation mechanisms, including the Capital Improvement Program (CIP).

The review would also examine or monitor progress made during the previous year, determining whether it is in conformance with stated goals and whether the Environmental Impact Report is still valid. An annual report to the Board would summarize this information as well as recommendations for updates and amendments.

5. Annual Budget

The annual County budget is a mechanism for prioritizing and funding particular projects and programs. The many policies and actions which are included in this Plan will require the various County departments to develop programs and propose them for funding as appropriate over the period of the Plan. The implementation of proposed programs will be approved as the Board agrees with the priorities for expenditure of the available resources. It is unknown at this time when resources will be available for specific programs implementing policies and actions.

6. Financing Strategies & the Use of Fiscal Impact Analysis

FISCAL IMPACT ANALYSIS

Many local governments view the planning process as monitoring and enforcing land-use decisions and regulations, and pay too little attention to long-range planning issues, including whether future growth will be affordable. Fiscal analysis can be an effective policy tool for long-range planning. Land-use requirements and regulations can be viewed from many different perspectives. Fiscal impact analysis can help translate land-use changes into service costs, revenues, and net cash flow to the public sector. It can explain how the delivery or cost of services and facilities will be affected by new development.

One of the by-products of a good fiscal analysis is the forecast of infrastructure needs to meet anticipated changes in a community. Any change in land use, population, or employment will have an impact on a number of capital-intensive services, including water and sewer service, roads, etc. The fiscal impact process may require specific types of infrastructure (for example, provision of sidewalks and street lighting on all local roads). The analysis will indicate how much new infrastructure will be required to serve an anticipated level of new development. Costs can then ve projected along with operating expenses for maintaining the new infrastructure.

A fiscal impact analysis helps identigy the economic development strategy that makes the most fiscal sense. A properly developed fiscal impact analysis system for major development projects within the County's jurisdiction could be a sueful tool to ensure that new development pays its fair share and does not become a burden to the County.

Fiscal impact analysis can have many benefits and may be used for budgeting or for land-use or capital or financial planning. One of the major benefits of fiscal impact analysis is that it can project marginal changes in the budget given possible land-use, demographics mix, and employment changes. It can provide a clear sense of the likely effects of various policies, which can be crucial to policy decisions. It can also help to define achievable levels of service, project capital facility needs, clarify development policy impacts, calculate capital costs and operating expenses, determine revenue, and aid in the development of revenue strategies.

FINANCING STRATEGIES

General Obligation Bonds

General bonds used to be the traditional obligation mainstay of long-term capital financing in most communities. For many years, general obligation bonds were preferred because they had very low interest rates, based on the pledge of the full faith and credit of the jurisdiction and their exemption from federal taxation. The passage of Proposition 13 technically eliminated general obligation bonds as financing mechanisms.

Revenue Bonds

Revenue bonds have rapidly replaced general obligation bonds as a favored vehicle for financing infrastructure facilities. They do not require voters approval and do not affect a community's bonded indebtedness. Because they are pledged against the collection of user fees or service charges, however, revenue bonds represent a greater risk than general obligation bonds and, therefore, carry higher interest rates.

Nevertheless, revenue bonds continue to be one major means of financing local infrastructure. The are based on an increasing variety of mechanisms, including assessment districts, special districts, tax increment financing, and user charges. Other revenue sources that have been created in the 1980's include development fees, development exactions, and private ownership of public facilities. While many of these techhniques are not new, they are being applied more frequently and in more varied situations.

These various techniques have a common objective. They attempt to tie the costs of constructing infrastructure more closely to its beneficiaries. Funding public works through these methods is based on raising revenues directly from existing or potential users of the facilities rather than from the community at large. Achieving this objective requires the designation of specific areas or properties on which special taxes, fees, or charges will be levied and the earmarking of those revenues to pay for new infrasturcture. The chief variations in the mechanisms have to do with whether the actual financing for infrasturcture is provided up front by developers, through the bond market, or through other alternatives.

Assessment Districts

Assessment districts, often called public improvement districts, are established to permit a special tax levy on property owners who benefit from special public improvements within the district.

The concept is widely used for providing facilities to finance basic infrastructure. An assessment district can be initiated by a public body, by a group of property owners, or by a community association, but it must by approved by a majority of property owners.

Special Districts

Special districts are essentially assessment districts with governing bodies separare from the local government. As limited-purpose local governments created under state enabling legislation, special districts have the authority to tax, issue bonds, and provide services within a specified area. Special districts are the most prevalent form of local government, and may be dependent (created and controlled by the County) or independent (meaning that bond issues are exempt from statutory limits on local government debt). Special districts are sometimes criticized for operating with minimal public involvement and control. However, they do provide a useful mechanism for targeted delivery of certain public services and their mission is sharply focused on providing efficient public services.

Mello-Roos Community Facility District

The Mello-Roos Community Facilities Act of 1982 was enacted by California legislature to aid growing areas of the State in financing essential public facilities for major development projects. Cities, counties and special districts can create defined areas within their jurisdiction, and by a two-thirds majority vote within this area, impose special taxes on area residents to finance needed public improvements and services to that area. Mello-Roos financing is mainly used to finance projects in newly developing areas where there is one or a limited number of cooperating property owners.

Mello-Roos Community Facility District financing differs from Assessment District financing in that a wider range of facilities can be financed including infrastructure such as schools, freeway exchanges, and arterial highways which serve a general benefit to the district rather than a specific benefit as required by assessment district financing. A Mello-Roos District can also pay for services such as police and fire protection as well as for administrative and financing costs of district formation. Essentially, Mello-Roos financing eliminates the need for developers to pay upfront fees for future facilities and services.

Tax Increment Financing

Tax increment financing is yet another method of providing public services and facilities. In this approach, increases in tax revenues that are realized as a result of new development in a specified area are earmarked for financing public improvements or services in that area. A district is defined with a specified "base line" tax of existing development. Improvements within the area are financed from public funds or bonds, then repaid from increasing tax revenues generated by the new development. The new development in effect pays its own way, using the community's normal tax program as the mechanism for deriving revenues.

Widely practiced in California, tax increment financing can be used to provide funds for infrastructure in areas where development is desired but funding for public facilities is not otherwise available when needed. The method does have the drawback of siphoning off all increases in revenues, even revenues attributable to increased value of existing development in the area, until the bonds are paid off. Nevertheless, tax increment financing offers an opportunity for financing infrastructure that can be practically painless for the community and devlopers alike.

User Charges

User charges are a traditional means of obtaining revenues to support public infrastructure. Such charges can be pledged to repay revenue bonds issued to finance new infrasturcture as well as to pay for operating and maintenance expenses. Water and sewer facilities and services are often financed in this way; other examples are state and federal gasoline taxes which pay for roads and highways, bus fares, toll road systems, and park fees.

Development Exactions

Development exactions are not a new device but are increasingly used. Exactions from a specific development may take a wide variety of forms. While at one time it was expected that a developer should provide basic roads, local water and sewer lines, and some improvements in drainage, it is now fairly common for jurisdictions to add parks, school sites, improvements in arterial roads, even fire stations and libraries to the list. For the community, the virtue of this method is that none of the costs for these facilities come from the public treasury.

Development Fees

Development fees or impact fees, are replacing exactionsin many jurisdictions. These fees are intended to compensate the community for extra costs for public facilities that a development will cause. The fee is normally paid when a building permit is issued, with the proceeds placed in a fund designated for construction of certain facilities. Such fees have advantages and disadvantages similar to those of exactions: they provide a relatively painless method for the community to obtain revenues for infrastructure. Such fees may become an important part of a growth management program and can be used to encourage certain types of development or growth in certain areas by differentiating among the fees.

Privately Owned Facilities

"Privatization" of public facilities and services is considered a serious alternative to public ownership. Most often the term is applied to situations where services are provided by a private firm under contract to a local government. It is not unusual for refuse collection and/or disposal to be handled this way, and private bus systems are common. However, few local governments have encouraged the construction of public facilities by private owners, except for unique projects such as convention centers and stadiums. The private owner can depreciate the facility, thereby gaining tax advantages, but must pay higher interest rates for borrowing funds. Other than these tax advantages (which are simply public financing in disguise), a real question exists as to whether private firms will wish to be heavily involved in building highways, sewer and water treatment plants, and similar public facilities.

Combined Financing Techniques

The above financing techniques can be and often are practiced in combination with others. A mix of techniques may overcome public resistance and achieve an equitable sharing of costs. In large-scale developments, developers often organize special districts or assessment districts to finance part of the infrastructure, while also contributing exactions and impact fees. Furthermore, as public sources of funding dry up, developers and local governments are becoming more artful at creating workable combinations.

Infrastructure financing traditionally has been a local issue, but over the years federal and state financial assistance for communities attempting to expand infrastructure increased significantly until the late 1970's. For many years, federal and state funding helped

communities to build infrastructure and various programs provided major funding for highways, sewer and water facilities. In fact, from 1970 to 1980, the federal share of investment in capital facilities rose sharply. But federal programs have been cut back in the 1980's, some drastically, leaving states and local governments to take up the slack

Designing workable and equitable mechanism to finance infrastructure is not a simple task. Infrastructure financing essentially concerns who pays for what. Decisions on this issue are political in nature and will undoubtedly remain so. With a variety of factors in play, techniques to employ, and parties with interest and responsibility, the answer is likely to vary in different areas and communities. Neverthelesss, the goal should be to provide needed public facilities while minimizing adverse effects on the public at large, homebuyers and tenants, and developers. This requires an equitable balancing of costs and benefits, and a recognition that investment in infractructure is an investment in the economy and well being of the entire County.

7. Coordinating Land Use Decisions

The General Plan applies to all agencies and departments of the County where their actions affect the use of land, and will be used in conformity reports on acquisition or disposal of public property. The County, the cities, special districts, state and federal agencies have the responsibility to coordinate land use planning.

INCORPORATED CITIES

It is the policy of the County that the incorporated cities and the County should:

- Coordinate land use planning.
- Make available to each other, for review and comment, proposed change in their general plan, zoning, and land use applications that may affect property adjacent to their boundaries.
- Share population, housing and land use statistics and resource capacity data.
- Share information on proposed public works recommended for planning, initiation or construction during the ensuing fiscal year that affect, with other areas or expansions, water, sewer and other infrastructure capability for future urban expansion, etc.) in accordance with the provisions of the capital improvement program.

SPECIAL DISTRICTS AND SCHOOL DISTRICTS

It is the policy of the County that special districts and school districts within the County should, pursuant to Government Code Sections 65401 and 65403:

- Annually make available to Planning staff a report on current service capabilities, including existing levels of service and present or proposed service capacities.
- Annually make available to staff a list of proposed public works recommended for planning, initiation or construction during the ensuing fiscal year.
- Submit proposed construction projects to the County for review, comment and findings on their conformity with the County General Plan.

STATE AND FEDERAL AGENCIES

It is the policy of the County that state and federal agencies conducting land use planning activities or administering projects within the County have the responsibility for:

- Coordinating land use planning with the County.

- Providing technical assistance to the County planning process as necessary or as requested.
- Notifying the Board of Supervisors of their actions or programs that may affect the County.
- Submitting, to the County, any proposed public works projects or proposed property acquisitions within the County, for review and comment and findings on the conformity of proposed projects and acquisitions with the County General Plan.

SECTION II

Planning Issues

A. NATURAL HAZARDS

B. MAN-MADE HAZARDS

C. NATURAL RESOURCES

D. MAN-MADE RESOURCES

A. NATURAL HAZARDS

Natural hazards are defined as conditions of potential danger or risk to life and/or property resulting from acts of nature. It is evident that only the works and activities of man make these natural conditions a significant hazard. As the population and its activities increase, the exposure to hazards increases. In San Bernardino County, the population has significantly grown over the last several years, underscoring the need to comprehensively evaluate all applicable hazards and their potential effect on existing and future development.

Four major groups of natural hazards are addressed:

1. Geologic
2. Fire
3. Flood
4. Wind/Erosion

Mapping of these issues and application of the policies delineate areas subject to hazards. In some cases, development may be precluded thereby providing open space for health and safety purposes. The Natural Hazards section, in combination with the Man-made Resources issue and mapping overlays, satisfies the mandatory requirements of the Safety Element. The following goals are applied to all natural hazards; as such, goals for each subsection are not needed.

Goals

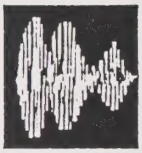
A-1 *Minimize the potential risks resulting from exposure of County residents to natural hazards in the following priority: loss of life or injury, damage to property, litigation, excessive maintenance and other social and economic costs.*

A-2 *Inform and educate the public of the risks from natural hazards, methods available for hazard abatement, prevention, mitigation, avoidance, and procedures to follow during emergencies.*

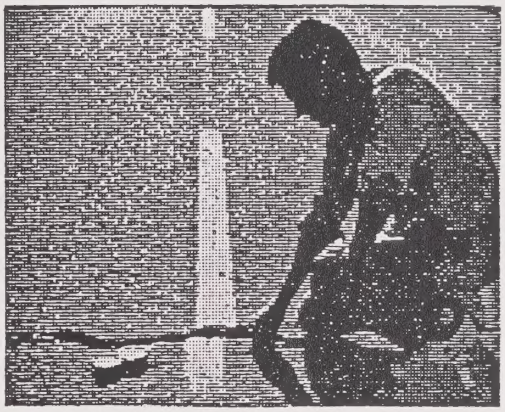
A-3 *Continuously integrate new data on hazards into overlay mapping and review of land use proposals and applications and enforcement of development standards through the use of mapping overlays, policies and land use designations.*

A-4 *Support and expand disaster response programs and initiate a program for post-disaster planning.*

1. Geologic



San Bernardino County is subject to many geologic hazards, especially in the heavily populated Valley area, exposing residents and development to varying degrees of risk. These include: seismic activity (earthquake-induced phenomena such as **fault rupture**, ground shaking, **liquefaction**, seismically-generated **subsidence**, **seiche**, and **dam inundation**), **landslide/mudslide** (or mudflow), non-seismic subsidence, **erosion** and volcanic activity. All of the above affect property and existing or potential uses.



Damage from the 1986 Palm Springs earthquake; Twentynine Palms

Other geologic hazards include collapsible, expansive and sulfate-reactive soils. These hazards, however, are controlled under current building and safety practices. An extensive discussion of geologic hazards (definition and existing conditions) can be found in the "Geologic Hazards Background Report" (under separate cover) which is not adopted as part of the General Plan. Natural hazards are identified on the Hazard Overlay Maps. Information sources and levels of accuracy are also indicated on those maps.

Policies/Actions

GE-1 Because strong technical input is needed to refine, enlarge and improve the knowledge of geologic hazards in San Bernardino County, the County shall:

a. Establish a countywide geotechnical information collection, storage and retrieval system that will:

   i) Solicit and coordinate geological studies by the United States Geological Survey (USGS), California Division of Mines and Geology (DMG), the County and other local agencies and make the resultant data available to the public and other agencies.
   ii) Incorporate all new research for the prediction and mitigation of geologic hazards.
   iii) Be coordinated, filed and maintained by the County Geologist.
   iv) Maintain clear and comprehensive mapping of all geologic hazards.

b. Utilize the County Geologist and the Geotechnical Advisory Committee to establish criteria, standards, guidelines and format for required geologic reports, and formulate standardized mitigation measures. The County Geologist shall review and approve all required geologic reports.

c. Incorporate newly-acquired data and technology into the mapping, policies and procedures of this component of the General Plan.

GE-2 Because the risks from many geologic hazards can be successfully mitigated through a combination of engineering, construction, land use and developmental standards, the County shall:

a. Require the formation of geologic hazard abatement districts as authorized by Public Resources Code Section 26500 et seq., where existing or proposed development is threatened by such hazards and where prevention, mitigation, abatement or control of a geologic hazard is deemed feasible.

b. Require sites to be developed and all structures designed in accordance with recommendations contained in any required geotechnical or geologic reports, through conditioning, construction plans and field inspections.

c. Require that all recommended mitigation measures be clearly indicated on all grading and construction plans.

d. Require that clearances around structures and road widths in geologic hazard areas, as shown on the Hazard Overlay Maps, meet the requirements found in Policy FR-2a, in Section II. Natural Hazards, Fire.

e. Require all facilities to meet appropriate geologic hazard specifications as determined by the County Geologist for discretionary and ministerial authorizations.

GE-3 Because increased public awareness of geologic hazards can reduce the risk of those hazards, the County shall:

a. Develop a geologic educational program for use by schools, developers and the public at large, covering hazards, abatements, and emergency plans and procedures as part of the County's Emergency Preparedness Management Plan.

b. Enact an ordinance requiring that geologic hazard information be recorded for each affected property so that all prospective home buyers may be informed.

c. Make geotechnical data and mapping readily available to the public through the Countywide Geotechnical Information System coordinated by the County Geologist as described under Policy GE-1.

GE-4 Because emergency preparedness is crucial to the protection of the public in case of disaster, the following actions shall be implemented:

a. Continue to fund and staff the existing Office of Emergency Services and maintain and update the Emergency Preparedness Management Plan.

b. Continue coordination with public and private agencies and initiate coordination in residential areas through Neighborhood Watch, homeowners associations and other neighborhood groups.

c. Provide for the needs of dependent and immobile populations in emergency response and recovery operations through identification and prioritization of rescue needs.

d. Require disaster plans and provisions in the design, location and management of all public facilities.

e. Plan, design and use public facilities according to the requirements of the County Emergency Management Plan.

f. Assure adequate access routes to and from potential devastation areas as required by the County's Emergency Management Plan. (Potential evacuation routes are discussed in Section II-D, "Transportation/Circulation" and shown on the Circulation Maps).

GE-5 Because the County's ultimate post-disaster survival will depend not only on the effectiveness of hazard mitigation and disaster response programs, but also on how quickly and how well the County is rebuilt after a major disaster, the County shall initiate a program for post disaster planning. All options from redevelopment to opportunities for upgrading shall be included. Such measures as revised street and traffic patterns, parking, architectural and landscape design, and general land use compatibility as well as building code improvements shall be addressed.

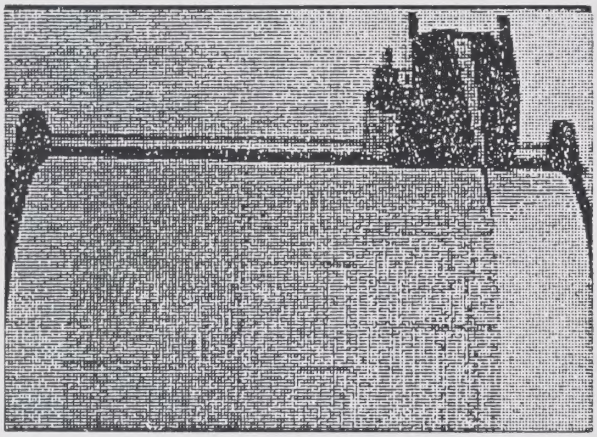
a. Establish a standing committee for disaster recovery to plan for a disaster, by providing contingency planning for the rapid and effective reconstruction of affected areas. The committee shall include representatives of Planning, Transportation and Flood Control, Economic and Community Development and Building and Safety as well as liaison to the local utilities and any State and Federal redevelopment, housing and reconstruction programs.

b. Develop guidelines through the committee for the exercise of emergency authorities for such purposes as:

i) Rapid designation of redevelopment areas through prepreparation of emergency ordinances.
ii) Possible revision of land use, circulation and parking requirements, .and institution of other programs for improving the community environment.
iii) Adaptation and institution of special programs for disaster recovery.
iv) Funding of disaster recovery measures.
v) Moratoria on reconstruction in any high-hazard areas where damage could be repeated.
vi) Upgrading of the building code.
vii) Establishment of Geologic Hazard Abatement Districts, as appropriate.
viii) Designation of sites for temporary housing (e.g., travel trailers and prefab construction) of households made homeless in the disaster, in cooperation with the Disaster Housing Program of the Federal Emergency Management Agency.

a. Seismic

Perhaps the most life threatening geologic hazards in the County are the numerous major **faults** traversing the area. These faults are designated on the Hazard Overlay maps and based on information developed by the California State Geologist under the **Alquist-Priolo Special Studies Zone Act**. Seismologists agree that the probability of a **great earthquake** on the San Andreas fault is very high, with the potential of causing thousands of deaths and billions of dollars in damages. The San Andreas traverses the most populous portion of the County, the Valley, as does the San Jacinto fault, considered to be the most active fault in California. Most of the Mountains and some portions of the Desert are also affected by seismic activity. The majority of County residents would be subjected to the full range of seismically-induced hazards, including ground shaking, liquefaction, subsidence, seiche and dam inundation. Fault rupture causes more localized damage affecting development astride the faults. While the County is continuing emergency planning for such a possibility, many other responses are appropriate. (Note: Because dams can fail through other than seismic activity, and the resultant hazard is from flooding, dam inundation policies are included in Section II-A, "Flood.")



Seismograph at the County Museum measuring earth vibrations; Redlands

GE-6 Because the County is traversed by many major active faults resulting in a relatively high level of risk, the County shall:

a. Establish a study of improvements in seismic design, geotechnology and building code updates.

b. Adopt all future upgrading of the seismic design section of the Uniform Building Code.

c. Require new structures and facilities to be designed and constructed to meet seismic and related design requirements of the most recent Uniform Building Code, or more stringent requirements if indicated by site investigations, except that no specified hazardous waste facility should be within 200' of an active/recently active fault.

d. Require all new critical, essential or high occupancy facilities to be designed and operated in such a manner as to remain standing and functional during and after a disaster as determined by the Office of Building and Safety.

GE-7 Because of the potential for displacement along faults not classified as active, the County shall reserve the right to require site-specific geotechnical analysis and mitigation for

development located contiguous to potentially active faults, if deemed necessary by the County Geologist.

GE-8 Because many structures constructed prior to both 1933 and 1971 seismic standards are considered inadequate to withstand a seismic event of the predicted intensity, the County shall undertake studies and develop programs to minimize the risk of potential seismic disaster in areas where inadequate structures exist in the following ways:

a. Initiate and fund a structural hazards identification and abatement program through the Office of Building and Safety with priority given to the identification and abatement of hazards in critical, essential and high occupancy land uses, in structures located within areas of severe geologic hazard and in structures built prior to enactment of applicable local or state earthquake design standards. This program shall be in accordance with SB 547, enacted in Chapter 250, statutes of 1986, requiring local jurisdictions to develop structural hazard reduction programs for such buildings by January 1, 1990.

b. Require periodic inspection by the Office of Building and Safety for all critical, essential and high occupancy buildings to identify potential hazards in the event of a major earthquake. When hazards are identified, require mitigation by the owner.

c. Bring existing (public and private) critical, essential and high occupancy structures found to be hazardous into conformance with applicable seismic and related safety (fire, toxic materials storage and uses, etc.) standards through rehabilitation, reconstruction, demolition or the reduction in occupancy levels or change in use.

d. Require rehabilitation of private unfit structures through implementation of the Uniform Building Code and Hazardous Building Ordinance. Priorities for critical, essential or high occupancy buildings shall be based on hazard to life, type of occupancy, method of construction, physical condition and location.

e. Continue to require the upgrading of buildings and facilities to achieve compliance with the latest earthquake standards as a condition of granting building permits for major additions and repairs.

f. Establish and administer incentives for seismic retrofitting through the Office of Economic and Community Development, including but not limited to:

   i) Area-wide revitalization programs.
   ii) Community Development Block Grants.
   iii) US Small Business Administration Loans.
   iv) Public Purpose Bonds.
   v) Tax Increment Financing.
   vi) Marks History Bonds.
   vii) Local-General Funds.
   viii) Local-General Obligation Bonds.

ix) Making the seismic safety condition of structures a major factor in selecting future areas for redevelopment.
x) Tax deductions for building rehabilitation to minimize personal economic costs.
xi) Providing relocation assistance to persons and businesses temporarily or permanently dislocated from hazardous old buildings.
xii) Requesting Federal and/or State financial assistance to implement corrective measures.

g. Support regional or statewide programs providing funding or technical assistance to local governments to allow accurate identification of existing structural hazards in private development and providing assistance to public and private sectors to facilitate and to minimize the social and economic costs of abatement.

GE-9 Because many structures with important functions and potentially severe consequences of failure do not fall under County control (i.e., dams, utility installations, transportation structures) the County shall:

a. Continue to work with public utilities, school districts, railroads, the State Department of Transportation (Caltrans) and other agencies supplying critical public services to ensure that they have incorporated structural safety and other measures to be adequately protected from seismic hazards for both existing and proposed facilities.

b. Encourage Caltrans and all railroads and utilities to review all their facilities within the County to assess potential impacts of seismic hazards; comments based on this review should be forwarded to the County.

c. Encourage utility companies to institute orderly programs of installing cut-off devices on utility lines, starting with the lines that appear to be most vulnerable and those which serve the most people. Adequate emergency water supplies shall be established and maintained in areas dependent upon water lines which cross active fault zones.

GE-10 Because the ground in close proximity to a fault is subject to rupture during earthquake, exposing occupants and structures to high levels of risk, those areas identified by the Alquist Priolo Special Studies Zone Act (Public Resources Code, Division 2, Chapter 7.5) shall be designated on the Hazard Overlay Maps and the following standards and procedures shall apply:

a. The definitions, provisions and mapping of the Alquist Priolo Special Studies Zone Act.

b. The Land Use Compatibility Chart for Special Studies Zones when reviewing all discretionary and ministerial actions (Figure II-1).

Figure II-1
Land Use Compatibility in Special Studies Zones and Fault Hazard Zones

LAND USES	COMPATIBILITY IN SPECIAL STUDIES ZONES OR COUNTY FAULT HAZARD ZONES
Critical - Nuclear related systems; major dams; explosives or hazardous materials/manufacturing, handling, or storage; hospitals and other emergency medical facilities; specified hazardous waste facility.	**Restricted**
Essential - Police, fire and communications systems; Emergency Operations Centers (EOC's); electric power inter-tie systems; power plants; small dams; utility substations; sewage treatment plants; waterworks; local gas and electric distribution lines; aqueducts; major pipelines; major highways, bridges and tunnels; ambulance services; public assembly sites with 300 or more capacity; schools	**Restricted**
High Occupancy - Multi-family residential of 20 or more units; major commercial including large shopping centers; office buildings; large hotels; health care clinics and convalescent homes; heavy industry; gas stations	**Generally Unsuitable**
Normal-Low Risk - Single-family and two-family residential; multi-family of less than 20 units; small scale commercial; small hotels, motels; light industry; warehousing; parks	**Provisionally Suitable**
Restricted - Restricted unless alternative sites are not available or feasible and it is demonstrated through a site investigation that, although mitigation may be difficult, hazards will be adequately mitigated.	
Generally Unsuitable - Restricted unless site investigation demonstrates that site is suitable or that hazards will be adequately mitigated.	
Provisionally Suitable - Requires site investigation to confirm suitability; may require some modification of facility design or siting.	

c. Maintain a minimum of a 50' setback from an **identified fault** for all new structures. For an **inferred fault** area, a 150' setback shall be maintained. However, critical, essential or high occupancy structures and facilities shall not be located in Special Studies Zones unless there is no feasible alternative, as determined by staff review, in which case these facilities shall maintain a 150' setback from an identified fault (200' setback if the fault is inferred.) Except that no specified hazardous waste facility should be within 200' of an active/recently active fault.

d. Withhold public financing from buildings within the Studies Zone where there is a confirmed fault trace unless it can be established that there is no potential for

surface fault displacement or ground rupture which would injure the public investment or fulfillment of its purpose.

e. Do not create new lots within the Studies Zone unless an appropriate geologic investigation establishes sufficient and suitable land area for development according to existing zoning and other applicable County ordinances.

f. Plan transportation facilities (i.e., roads, freeways, rail, rapid transit) and utility systems to cross active fault traces a minimum number of times and to be designed to accommodate fault displacement without major damage that would cause long term and unacceptable disruption of service. Utility lines shall be equipped with such mechanisms as flexible units, valving, redundant lines or auto valves to shut off flows in the event of fault rupture.

GE-11 Because the purpose of the Alquist/Priolo Special Studies Zone Act is only applicable to fault rupture areas (in close proximity to faults) and because the entire San Bernardino-Chino Valley area is subject to severe hazard from the effects of shaking due to an earthquake, the County shall:

a. Require special studies, including dynamic analysis for all major structures (critical, essential and high occupancy land uses) within areas determined by the County Geologist to be subject to significant seismic shaking.

b. Design and construct all structures in areas determined by the County Geologist to be subject to significant seismic shaking to withstand ground shaking forces of a **minor earthquake** without damage, of a **moderate earthquake** without structural damage, and of a **major earthquake** without collapse. Critical, essential, and high occupancy structures shall be designed and constructed to remain standing and functional following a major earthquake and shall be so engineered as to withstand maximum probable ground motion accelerations.

c. Require all new construction to meet the most current and applicable lateral force requirements. Except that no residual repository maybe located in areas of **rapid geological change.**

d. Strengthen earthquake resistance standards for nonstructural components of structures including exterior veneers, internal partitions, lighting fixtures, elevators and equipment.

GE-12 Because liquefaction can cause devastating structural damage and because there is a high potential for saturation when the groundwater level is within the upper 50 feet of **alluvial** material, the County shall:

a. Require that each site located within the Liquefaction Hazard Overlay, be evaluated by a licensed geologist prior to design, land disturbance or construction, for soil type, history of the water table's fluctuation and adequacy of the structural engineering to withstand the effects of liquefaction.

Figure II-2
Land Use Compatibility in Liquefaction Potential Zones

	DEGREE OF COMPATIBILITY IN LIQUEFACTION POTENTIAL ZONES		
LAND USES	High Zone	Medium-High Zone	Medium Zone
Critical - Nuclear related systems; major dams; explosives or hazardous materials manufacturing, handling, or storage; hospitals and other emergency medical facilities; hazardous waste residual repository.	**Restricted**	**Restricted**	**Generally Unsuitable**
Essential - Police, fire and communications systems; Emergency Operations Centers (EOC's); electric power inter-tie systems; power plants; small dams; utility substations; sewage treatment plants; water-works; local gas and electric distribution lines; aqueducts; major pipelines; major highways, bridges and tunnels; ambulance services; public assembly sites with 300 or more capacity; schools	**Restricted**	**Restricted**	**Generally Unsuitable**
High Occupancy - Multi-family residential of 20 or more units; major commercial including large shopping centers; office buildings; large hotels; health care clinics and convalescent homes; heavy industry; gas stations	**Restricted**	**Generally Unsuitable**	**Provisionally Suitable**
Normal-Low Risk - Single-family and two-family residential; multi-family of less than 20 units; small scale commercial; small hotels, motels; light industry; warehousing	**Restricted**	**Generally Unsuitable**	**Provisionally Suitable**
Restricted - Restricted unless alternative sites are not available or feasible and it is demonstrated through a site investigation that, although mitigation may be difficult, hazards will be adequately mitigated.			
Generally Unsuitable - Restricted unless site investigation demonstrates that site is suitable or that hazards will be adequately mitigated.			
Provisionally Suitable - Requires site investigation to confirm suitability; may require some modification of facility design or siting.			

b. Apply the Land Use Compatibility Chart for Liquefaction Areas (Figure II-2) when reviewing all discretionary and ministerial actions.

GE-13 Because of the potential for liquefaction impacts to existing structures, the County shall inventory and analyze such facilities in areas with liquefaction potential.

GE-14 Because development has encroached on the edges of some of the lakes and reservoirs in the County and because seiche wave action is difficult to predict, the County shall:

a. Initiate a detailed analysis of County lakes and reservoirs and consider seiche zoning.

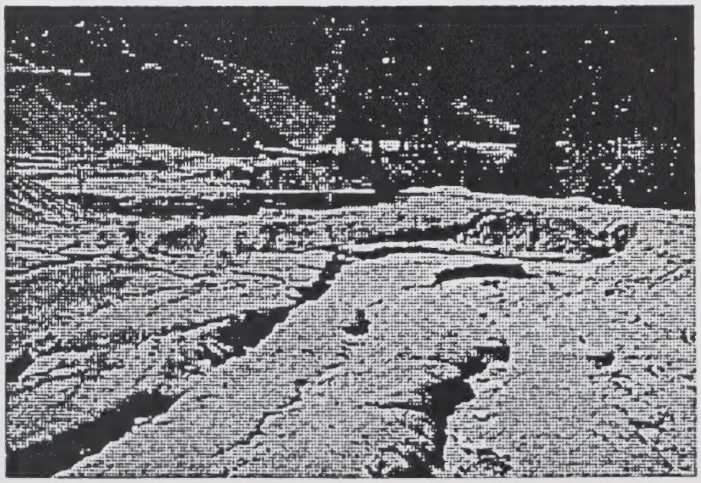
b. Identify and apprise property owners presently occupying these areas of the hazard if analysis deems the hazard significant.

c. Request cooperation from all reservoir regulating agencies in keeping reservoir levels below full capacity to lessen the possibility of overtopping, and/or prohibit development within an established elevation of each reservoir.

d. Undertake a program to identify and develop mitigation for seiche hazards to appropriate existing structures.

b. Landslide/Mudslide

In San Bernardino County, the San Gabriel, San Bernardino, Little San Bernardino and Pinto Mountains compose a portion of the Transverse Ranges. They are characterized by steep slopes, sharp narrow ridges and steep-walled, incised canyons, valleys and major faults. This setting can produce numerous landslides and mudslides, especially when combined with other adverse geologic conditions, and heavy precipitation. Steepness of slope, the nature of the bedrock, soil and precipitation combine to control County landslide locations. The Wrightwood landslide area is of critical concern. It is an area whose primary movement is mudflow or mudslide. This is induced by high precipitation, especially in the spring when melting snow produces saturation levels. The San Andreas fault bisects the community, causing additional concern. Though to a lesser degree, the steep fronts of the eastern San Gabriel and Southwestern San Bernardino Mountains present a major stability hazard, especially adjacent to faults. Many of these areas lie within the National Forest so it is assumed the majority of these publicly-owned lands will not be developed. The lack of stability may, however, result in major problems in highway construction and maintenance. Landslides and avalanches in this area also cause debris in flood control, dam and reservoir facilities. Landslide deposits are often generation areas for large debris-flows or mudflows which occur during periods of heavy precipitation, especially after vegetation has been destroyed by fire or off-road-vehicle-generated erosion. In addition, in southwestern San Bernardino County, the Chino Hills is underlain by landslide-prone marine rocks, presenting the greatest potential slope stability problem in that area.



Mountain development threatened by mudflows; Lake Arrowhead

GE-15 Because large portions of the San Bernardino and San Gabriel Mountains and the Chino Hills have high landslide potential posing substantial risk to life and property, and because once landslides are recognized, many can be safely mitigated or the County shall:

a. Require that a stability analysis be required in Landslide Hazard areas designated "Generally Susceptible" and "Most Susceptible" on the Hazards Overlay Maps and where required by the County Geologist.

b. Require site development and construction in compliance with soil and geologic investigation report recommendations.

c. Apply the Land Use Compatibility Chart for Landslides (Figure II-3) when reviewing all discretionary and ministerial actions.

d. Fund and prepare a land use plan that is in conformance with the Land Use Compatibility Chart for Landslides in Wrightwood and other designated high landslide hazard areas as they are identified.

e. Restrict avoidable alteration of the land which is likely to increase the hazard within areas of demonstrated or potential landslide hazard, including concentrations of water through drainage or septic systems, removal of vegetative cover, steepening of slopes and undercutting the base of a slope.

f. Restrict grading to minimal amounts necessary to provide access and require grading permits to have an approved site plan which minimizes grading and conforms to the recommendations of any required geologic investigation.

g. Require development on hillsides to be sited in the least obtrusive fashion, thereby minimizing the extent of topographic alteration required.

h. Restrict development in areas of known landslides or landslide-prone deposits on steep slopes, except where engineering and geologic site investigations indicate such sites are stable or can be made stable by the application of appropriate mitigating measures. In such cases, it must be shown to the satisfaction of the County that the risk to persons, property and public liability can be reduced to an acceptable degree.

i. Require that foundation and earth work be supervised and certified by a geotechnical engineer and where deemed necessary, an engineering geologist, in projects where evaluations indicate that state-of-the-art measures can correct instability.

j. Generate Countywide and area-specific (where appropriate) hillside development plans on the basis of baseline inventory and geotechnical analysis related to landsliding potential.

Figure II-3
Land Use Compatibility in Landslide Suseptibility Zones

	DEGREE OF COMPATIBILITY IN LANDSLIDE SUSCEPTIBILITY ZONES			
LAND USES	**Least Susceptible Zone**	**Marginally Susceptible Zone**	**Generally Susceptible Zone**	**Most Susceptible Zone**
Critical - Nuclear related systems; major dams; explosives or hazardous materials manufacturing, handling, or storage; hospitals and other emergency medical facilities	**Most Compatible**	**Marginally Compatible**	**Least Compatible**	**Least Compatible**
Essential - Police, fire and communications systems; Emergency Operations Centers (EOC's); electric power inter-tie systems; power plants; small dams; utility substations; sewage treatment plants; water-works; local gas and electric distribution lines; aqueducts; major pipelines; major highways, bridges and tunnels; ambulance services; public assembly sites with 300 or more capacity; schools	**Most Compatible**	**Marginally Compatible**	Least Compatible	**Least Compatible**
High Occupancy - Multi-family residential of 20 or more units; major commercial including large shopping centers; office buildings; large hotels; health care clinics and convalescent homes; heavy industry; gas stations	**Most Compatible**	Generally Compatible	Marginally Compatible	**Least Compatible**
Normal-Low Risk - Single-family and two-family residential; multi-family of less than 20 units; small scale commercial; small hotels, motels; light industry; warehousing	**Most Compatible**	**Most Compatible**	**Generally Compatible**	**Marginally Compatible**
Most Compatible Acceptable; however, if specific concerns are identified, a slope stability analysis may be required.				+
Generally Compatible Requires a slope stability analysis to confirm suitability; may require some modification of facility design or siting				+
Marginally Compatible Restricted unless site investigation demonstrates that site is suitable or that hazards will be adequately mitigated.				+
Least Compatible Restricted unless alternative sites are not available or feasible and it is demonstrated through a slope stability analysis that, although mitigation may be difficult, hazards will be adequatly mitigated.				
Note - A slope analysis shall include either: a. A slope stability report by a private consultant, or b. Staff review of slope instability areas shown on Seismic/Geologic Maps or other in-house data, or staff field check. If proposed structures appear to be threatened by moderate or high slope instability, then the project would by conditioned.				

GE-16 Because of the potential relationship between seismic activity and landsliding effects, the County shall require that a seismic analysis be included as a part of landslide stability studies when required by the County Geologist.

c. *Subsidence*

The two types of subsidence of major concern to San Bernardino County are tectonic subsidence and subsidence due to groundwater withdrawal. Within geologic time, the County has undergone tectonic activity including the uplifting of the San Bernardino mountains in relation to the San Bernardino Valley Area. Plate-tectonics is the mechanism responsible for this movement which has caused miniplates to be formed at major plate boundaries and has reoriented, folded and faulted these small crustal pieces. This activity has raised some of these miniplates or blocks and has allowed others to subside. This tectonic subsidence is primarily of concern during very large earthquakes when subsidence could occur instantaneously and may total many feet. Tectonic subsidence is uncontrollable by man.

Subsidence due to groundwater withdrawal has been and still remains of concern to the alluvial valleys of San Bernardino County. The entire alluvial valley area in southwestern San Bernardino County (the La Verne, Chino-Riverside, and Bunker Hill-Yucaipa areas) has experienced subsidence from groundwater withdrawal. From 0.8 to 5.8 feet of subsidence is reportedly possible in these areas. As a result, local water agencies have elected to **spread** enough imported water to halt or impede further subsidence. Subsidence has been reported in the Antelope Valley area of northeastern Los Angeles County and may extend eastward into a small segment of this County. It is anticipated that similar subsidence will occur in other desert basins as development increases and groundwater drafts increase accordingly. Groundwater studies, surveys and field investigation are required for specific identification of hazardous subsidence areas and for information necessary to develop proper mitigation measures.

GE-17 Because of limited specific information on the extent of subsidence in the County, the County shall:

a. Undertake a program of subsidence hazard identification that will outline the extent of the hazard in the County and propose mitigation measures, through the office of the County Geologist.

b. Restrict the construction of any facility which is needed for public safety or for the provision of needed emergency services where an interruption in service could result from structural failure due to settlement or subsidence unless the only alternative sites would be so distant as to thereby jeopardize the safety of the community served.

c. Require that all site-specific geotechnical investigations conducted for proposed development include an assessment of potential impacts and mitigation measures related to expansive and reactive soils, and erosion.

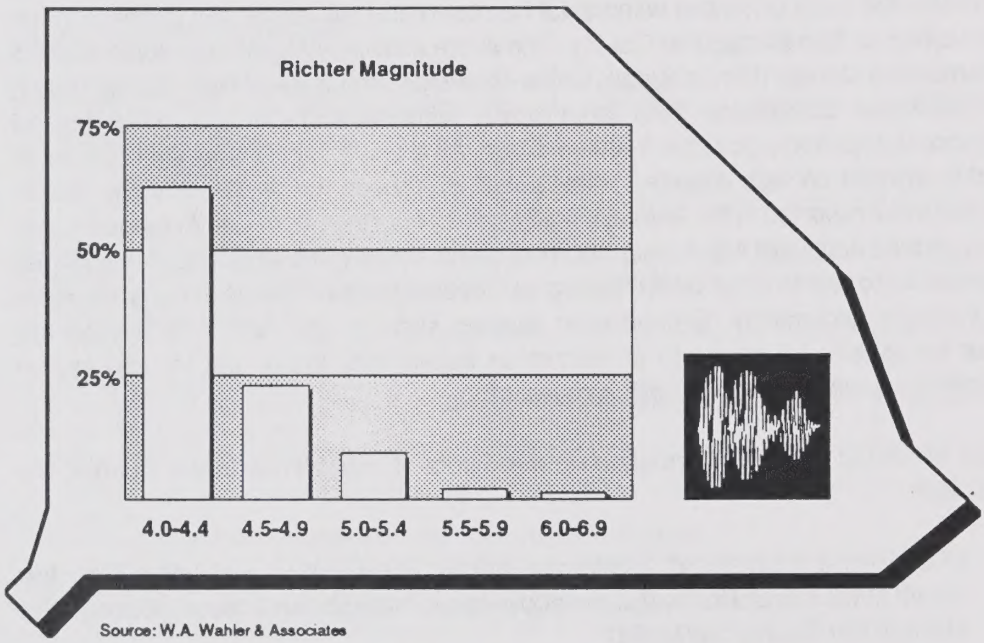
d. *Volcanic Activity*

Volcanic eruptions have occurred in San Bernardino County intermittently during the geologic past and as late as 6,000 years ago. It is possible that renewed volcanic activity will occur. More recent volcanic areas of the County are classified as dormant but not

necessarily extinct. The likelihood of volcanic eruption in the near future is very remote considering the relatively long period of quiescence. Furthermore, most of these volcanic centers are located in areas which are sparsely populated. However, as part of a long-range land use plan, some consideration should be given to volcanic hazards.

GE-18 Because volcanic activity in the County has not occurred for a relatively long period, reducing the likelihood of a future event and because most volcanic areas are located in sparsely populated areas outside County jurisdiction (under Bureau of Land Management Control), the County shall designate volcanic areas for recreation, open space, wildlife and natural phenomena reserves and preserves through overlays and Resource Conservation (RC) land use district.

Earthquake magnitude and their frequency of occurrence in the County since 1934

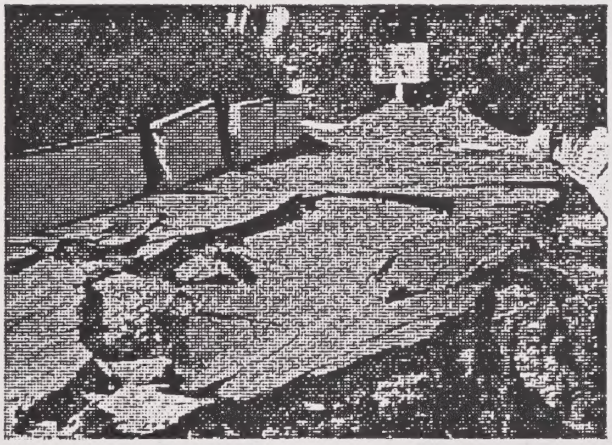


Source: W.A. Wahler & Associates

2. Flood

The County has experienced severe and widespread flooding throughout its history. Several major drainage basins have the potential to subject residents and structures to a high risk of flooding. In addition, the cumulative increase in **impervious** surfaces has increased problems related to surface run-off. While complete avoidance or protection through control facilities is not practical, considerable improvement can be made through both structural and nonstructural methods.

The County currently utilizes land use districts to prohibit habitable structures in **floodways** as identified by the Federal requirements necessary to participate in the **National Flood Insurance Program**. The consistent adoption of overlays is needed to require special review, conditions and the prohibition of some uses in **flood plain** areas (areas subject to 100 year floods), including dry lakes. In addition, there are land use policies and development standards which can be implemented including reduction of impervious surfaces, increase of **percolation**, infiltration and **recharge**, and the control of urban run-off. There is a need for the County to identify all areas of flood and drainage hazards, especially in the Desert where mapping is sparse, as well as areas with a heavy concentration of debris or the potential for **dam inundation**. Flood hazards are more comprehensively discussed in the Flood Hazards/Flood Control Background Report (under separate cover which is not adopted as part of the General Plan).



Driveway destroyed by the 1969 flood; Rancho Cucamonga

Policies/Actions

FL-1 Because the County has entered into an agreement to participate in the National Flood Insurance Program (NFIP) which provides flood insurance within designated floodplains, the following shall apply:

a. Floodway and Floodplain areas, as identified by the **Federal Emergency Management Agency (FEMA)** on Flood Insurance Rate Maps and Flood Boundary Maps, shall be designated as Floodway (FW) on the Land Use Maps and Floodplain Overlays on the Hazards Overlay Maps.

b. Designated floodway areas shall be preserved for nonstructural uses through restrictions of the FW land use district.

c. All new development, including filling, grading and construction, proposed within designated floodplains, shall require submission of a written assessment pre-

pared by a qualified hydrologist or engineer, in accordance with the latest "San Bernardino County Hydrology Manual" and the various detention basin policies (see Policy FL-11), to determine whether the development will significantly increase flood hazard and to show that all new structures will be adequately protected. Development shall be conditioned on receiving approval of this assessment by the San Bernardino County Office of Surveyor, Land Development Engineer.

d. All new construction in the Floodplain Overlay areas shall be required to be flood-proofed and shall be located and designed to allow unrestricted flow of floodwaters.

e. The Land Use Compatibility Chart for 100 Year Flood Plains (Figure II-4) shall apply when reviewing all discretionary and ministerial actions in the designated floodplain.

Figure II-4
Land Use Compatibility in 100-Year Floodplains

LAND USES	COMPATIBILITY IN 100-YEAR FLOODPLAINS
Critical - Nuclear related systems; explosives or hazardous materials manufacturing, handling, or storage; hospitals and other emergency medical facilities	**Restricted**
Essential - Police, fire and communications systems; Emergency Operations Centers (EOC's); electric power inter-tie systems; power plants; utility substations; sewage treatment plants; water-works; local gas and electric distribution lines; aqueducts; major pipelines; major highways, bridges and tunnels; ambulance services; public assembly sites with 300 or more capacity; schools	**Restricted**
High Occupancy - Multi-family residential of 20 or more units; major commercial including large shopping centers; office buildings; large hotels; health care clinics and convalescent homes; heavy industry; gas stations	**Generally Incompatible**
Normal-Low Risk - Single-family and two-family residential; multi-family of less than 20 units; small scale commercial; small hotels, motels; light industry; warehousing	**Generally Incompatible**
Restricted - Restricted unless alternative sites are not available or feasible and it is demonstrated that, although mitigation may be difficult, hazards will be adequately mitigated.	
Generally Incompatible - Restricted unless site investigation demonstrates that site is suitable or that hazards will be adequately mitigated.	+

f. Lands within floodplain areas may be developed with noncritical and nonessential uses, especially uses such as parks, trails, and open space.

g. Known flood hazard information shall be provided with every discretionary ministerial action application.

h. When no mapped data exists, existing topographical, watershed, and drainage course data shall be evaluated for a determination of potential flood hazard for every discretionary and ministerial action.

FL-2 Because the FEMA mapping and studies do not yet identify all flood hazard areas in the entire County, the following shall be required:

a. As new overflow studies and mapping are completed and approved by either the County's Land Development Engineer or the San Bernardino County Flood Control District, they shall supplement the FEMA mapping, and shall be incorporated into Flood Hazard Overlay mapping.

b. Programs for the continuous evaluation and designation of floodway, floodplain and drainage areas shall be initiated and financed.

c. Timely application for FEMA mapping changes shall be initiated to reflect any additions to or alterations in identified Floodways or Floodplains by the County Floodplain Management Administrator.

d. The siting of residential and other types of development requiring substantial structures shall be prohibited on playas or dry lake beds as shown on the Floodplain Overlay Maps. Industrial, commercial, recreational, or transportation and other uses which utilize the playa or dry lake as a resource may be permitted.

e. Continued evaluation of all County areas through application of development conditions in the pre-construction flood hazard inspection process.

f. Site studies where development is proposed in areas tentatively identified as subject to flooding.

g. Construction in compliance with study recommendations as described in site study required under FL-2f.

FL-3 Because dam failure as a result of earthquake or other causes results in severe risk to downstream properties, the County shall:

a. Require an engineering geology report for all new or proposed public and private reservoirs. This report shall be completed by a registered engineering geologist, conform to County standards, and be approved by the County Geologist.

b. Include reservoirs as Dam Inundation areas on the Hazard Overlay Maps as required by the State of California.

c. Prohibit new dams and reservoirs in areas designated as Geologic Hazards on the Hazard Overlay Maps.

d. Seek elimination of potentially hazardous dams and reservoirs.

e. Initiate programs to increase the earthquake resistance of dams and reduce the potential impacts of seismically-induced dam failures.

f. Prohibit critical, essential and high occupancy uses from Dam Inundation areas as shown on the Hazard Overlay Maps and Figure II-4.

FL-4 Because substantial development has already occurred in floodways and floodplains, the County shall:

a. Continue to identify **natural drainage courses** and designate **San Bernardino County Drainage Easements** as a means to preserve natural drainage flow paths and/or constructed drainage facilities.

b. Require identification, improvement and upgrading of critical facilities in **flood hazard areas** through such measures as anchorage to prevent flotation, water tight barriers over openings, reinforcement of walls to resist water pressures, use of materials to reduce wall seepage and installation of pumping facilities for internal and subsurface drainage.

c. Require implementation of flood protection measures when additions valued at 25% or greater of the original structure are proposed.

d. Establish funding mechanisms when flood control facilities are warranted.

FL-5 Because individual developments may be subject to spot flooding from small streams or unmapped areas adjacent to mapped flood areas, the County shall require specific hydrology and hydraulic studies to be prepared at the time developments are proposed. These studies shall:

a. Identify existing drainage conditions, upstream and downstream drainage conditions at build-out of the General Plan, and measures which must be taken within the development project or downstream from the project to preclude impacts on the proposed development or increased impacts to downstream development. These studies should be submitted and reviewed by the Land Management Department.

b. Fully account for all planned flood-control facilities within or adjacent to the project site. Where sections of flood-control facilities cannot be constructed, provision should be made for their ultimate construction, that is, rights-of-way reserved and construction funds secured. Additional, interim facilities must be provided which will be able to handle the additional runoff from the proposed development until the planned flood control facilities are constructed.

FL-6 Because drainage from adjacent development contributes to flood hazards, the following shall be required:

a. The run-off provisions of the Erosion and Sediment Control Ordinance shall apply Countywide.

b. Surface run-off from new development shall be controlled by on-site measures including but not limited to:

i) Structural controls.
ii) Restrictions regarding changes in topography, removal of vegetation, creation of impervious surfaces, and periods of construction, such that the need for off-site flood and drainage control improvements is minimized and such that run-off from the development will not result in downstream flood hazards.

FL-7 Because public education plays a vital role in minimizing flood hazard, the County shall:

a. Establish a public information system through the Office of Emergency Services outlining emergency operations plans and measures to reduce personal losses in the event of a flood disaster.

b. Develop a flood warning system, where possible, through the Flood Control District.

c. Develop dam failure and flood plain inundation evacuation plans through the Office of Emergency Services and the Transportation and Flood Control Department, where possible.

d. Enact an ordinance that would require flood hazard information be recorded for each affected property so that all prospective buyers may be informed.

FL-8 Because flood control and drainage measures are part of an overall community improvement program and should advance the goals of recreation, resource conservation, preservation of natural **riparian** vegetation and habitat, and the preservation of the scenic values of the County's streams and creeks, the County shall:

a. Consider ecological significance and aesthetic quality of natural drainage ways in the design of all drainage projects.

b. Require that storm waters be used for groundwater recharge when possible and that existing groundwater recharge areas be considered for retention as unbuilt open areas.

c. Preserve all existing "unlined" and "natural" drainage channels and water courses such as creeks and river beds as resource management areas or linear parks and recreation trails, whenever technically and economically feasible. Linear park and/or recreation trails shall be part of a master-planned system.

FL-9 Because flood protection is both local and regional in nature, the County shall:

a. Continue the development of intergovernmental coordination with cities, adjacent Counties, the Army Corps of Engineers, and other agencies which have an interest in flood control projects that cross jurisdictional boundaries.

b. Continue efforts to obtain funding for implementation of the Santa Ana River Mainstem ("All River Plan") for the Santa Ana River watershed. Continue to coordinate with Orange and Riverside Counties and the Army Corps of Engineers in this regional project.

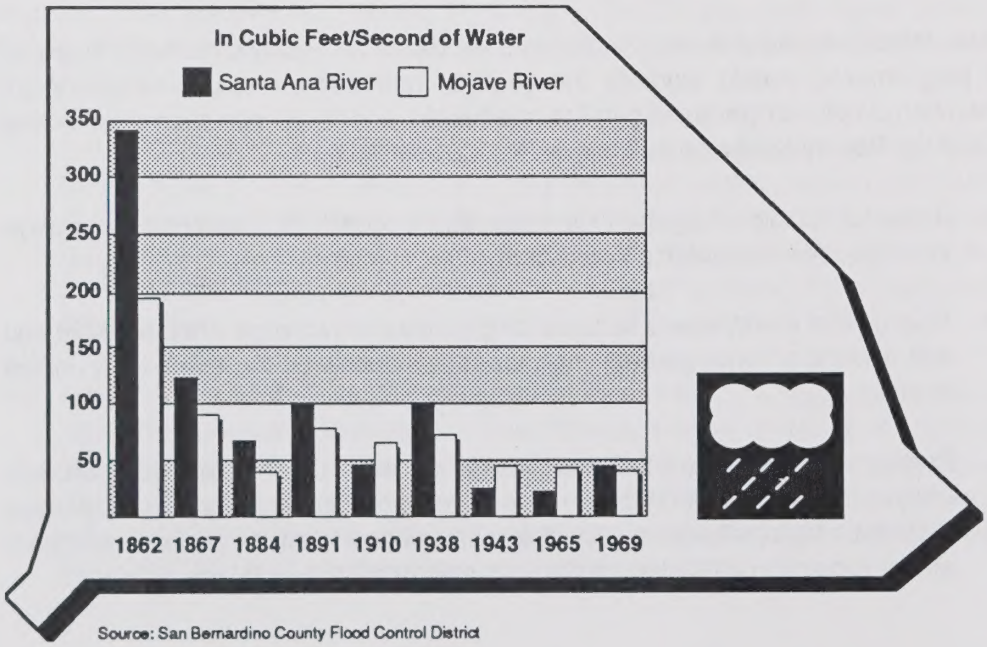
c. Coordinate land use and flood control planning through continued improvement of staff contacts between the Land Management Department, Flood Control District, Special Districts Department, and cities within the County, and through annual review of the Capital Improvements Program.

FL-10 Because the funding of necessary flood control and drainage facilities is a major concern, the County shall continue to develop local area drainage plans and establish funding mechanisms, such as the Bledsoe Creek project, to provide the backbone drainage system for watershed areas.

FL-11 Because the proliferation of detention basins is not desirable, safe or economical, the following policies and criteria shall be implemented:

- San Bernardino County Detention Basin Policy.
- San Bernardino County Detention Basin Maintenance Financing Policy.
- San Bernardino County Detention Basin Submittal Procedures.
- Detention Basin Design Criteria for San Bernardino County.

Years of significant flooding and their magnitude in the County



Source: San Bernardino County Flood Control District

3. Fire

A combination of climate, topography, vegetation and development patterns creates high fire hazard risks throughout the County, especially in the many areas of **wildland/urban intermix** located in foothills and mountainous areas Countywide.

As development encroaches upon **wildland** areas, the potential for disastrous loss of watershed, structures, and life (human and wildlife) increases. Establishment of a coordinated program to condition development in some of these areas has been adopted through the Foothill Hazards (**Greenbelt**) Overlays and the Mountain Fire Zone. However, high fire hazard areas go beyond these designated areas. The Foothill Hazard Overlays, the Mountain Fire Zone and the additional high fire hazard areas are included in the Fire Hazard Overlay Mapping. Continuous evaluation and application of Hazard Overlays and accompanying policies and standards for adequate services, facilities, mapping, and developmental regulation are required as pressure for development increases Countywide. Included in developmental regulation are requirements for minimum road widths (to provide adequate access for both fire fighting equipment and evacuating residents) and clearance around structures to prevent the rapid spread of fire from one structure to another.

County firemen battle a home engulfed in flames; Yucaipa

In response to state law, the **Peakload Water Supply System Guidelines** were developed. These guidelines, designed to ensure an ample water supply, are the sum total of required fire flow, operational daily consumption and emergency storage. However, increasing demands on groundwater can create deficiencies in the water supply. Many major groundwater basins are facing water supply problems.

A comprehensive discussion of fire hazards and facilities is found in the "Fire Hazards/Fire Protection Background Report" (under separate cover which is not adopted as part of the General Plan).

Policies/Actions

FR-1 Because an integrated approach is needed to coordinate the County's present and future needs in fire protection services in response to fire hazards and risks and to serve as a basis for program budgeting, identification and implementation of optimum cost-effective solutions, the County shall:

a. Fund, adopt and implement a Countywide Fire Protection Master Plan based upon land use districts requiring:

   i) All Board-governed districts with fire powers to develop a Fire Protection Master Plan to a prescribed format and submit it to the County Fire Warden for review.
   ii) Strong recommendation that all cities and self-governed Districts with fire powers develop a Fire Protection Master Plan to a prescribed format.
   iii) The County Fire Warden to compile and evaluate the Fire Protection Master Plans submitted, then develop a Countywide Fire Protection Master Plan with recommended minimum fire protection standards and submit to the Board of Supervisors for adoption.

b. Develop, adopt and implement a recommended schedule of fees to finance the fire protection infrastructure that is tied to land use categories and specific community needs as prescribed by the Countywide Fire Protection Master Plan.

c. Develop, adopt and implement a recommended schedule of fees for Fire Protection Planning and Fire Prevention Services Countywide.

d. Continue to coordinate fire protection services Countywide, with the California Department of Forestry and Fire Protection, the United States Forest Service, Bureau of Land Management, and all City and special districts with fire protection powers.

e. Require applicants to prepare a site-specific fire protection plan, particularly in areas of high and very high fire risk.

f. Require applicant to fund expansion of local fire protection services for large developments (PD's) in excess of 50 units.

g. Implement monitoring of fire-prevention measures (such as fuels reduction) to prevent damage to biological habitats in chapparal areas.

FR-2 Because expanding development boundaries have resulted in extensive fire hazards in wildland/urban intermix areas Countywide, the County shall:

a. Apply the regulations of the "Greenbelt" Fire Safety Overlay Ordinance, as found in the Development Code, to all County areas subject to wildland/urban intermix fire hazards including all mountain and foothill areas; the provisions of the Hillside and Foothill Hazard Overlay Ordinances as found in the Development Code shall be incorporated into the Fire Hazard Overlay insuring that:

   i) High fire hazard development shall incorporate careful site design, use of fire retardant building materials and landscaping, development and maintenance of **fuel breaks** and vegetation management programs, and provisions to limit public access to open space areas in order to minimize wildland fire hazard.

ii) Adequate and reliable water storage for community fire protection in hazardous areas is provided.
iii) Multiple access with minimum road design standards is required.
iv) Building densities on all sloping lands shall be limited to Greenbelt standards.
v) All subdivisions with slopes greater than 30% submit a Planned Unit or Planned Residential Development application.
vi) Clearances around structures and road widths in fire and geologic hazard areas as identified on the Hazard Overlay Maps should generally meet the following requirements:

- New structures proposed on parcels of sufficient width (usually 60 feet or greater) should maintain a minimum 30-foot wide building separation.
- All structures should maintain a minimum of a 30-foot wide vegetation clearance area with some exceptions for ornamental landscaping and ground cover as recommended by the local fire authority.
- Public roadways should be developed with a minimum 40-foot wide right-of-way in the Mountains and a 50-foot wide right-of-way in the Valley and Desert, both with a minimum 26-foot wide paved way of travel. For privately maintained roads, the minimum should generally be no less than a 24-foot wide paving with no parking allowed, 30-foot paving with parking allowed on one side, or a 36-foot wide paving with parking allowed on both sides.

vii) Pre-application conferences for all projects in fire hazard areas are required.
viii) Incorporation of High Fire Hazard Area criteria in the review of proposed General Plan Amendments and in the development of Planning Area, Specific or Regional Plans is required.

b. Identify and map all such areas on a continuous basis, amending hazard overlay maps where needed.

c. Evaluate the Fire Hazard Overlay Ordinance regularly and revise when necessary to reflect the most current fire safe building and development techniques and standards (i.e., provision of Life Safety Fire Sprinklers in new construction of dwelling units).

FR-3 Because public education is a vital part of fire hazard abatement, prevention and mitigation, the County shall:

a. Continue to support existing County Forestry-Fire Warden Department education programs in the areas of vegetation modification and management, fire-safe site design techniques and fire prevention, including smoke detector distribution, Exterior Hazard Inspection Programs, Fire Safety Team Teaching and the Forest Protection Program.

b. Continue to disseminate an informational brochure on design and construction standards required in the Fire Hazard Overlay through the Office of Building and Safety.

c. Prepare and adopt an ordinance requiring that fire hazard information be recorded for all properties in the Fire Hazard Overlay so that all prospective property owners will be informed.

FR-4 Because fire exists as a hazard Countywide, the following requirements shall apply Countywide unless superceded by the more stringent requirements of the Fire Hazard Overlay:

a. The following Peakload Water Supply System guidelines (Figure II-5) shall be met for all new development or be adequately served by water supplies for domestic use and community fire protection in accordance with standards as determined by the County and the local fire protection agency or authority.

b. Provide adequate fire protection facilities and services in accordance with standards of the County and the local serving fire protection agency or authority for all development, existing and proposed.

c. Require structures, features of structures or activities determined to be hazardous in terms of fire potential to be brought into conformance with current applicable fire and safety standards.

d. Limit or prohibit development or activities in areas lacking water and fire fighting facilities.

e. Approve high intensity uses such as theaters, motels, restaurants, and schools, and uses requiring the handling or storage of large amounts of highly flammable materials only in areas with year round fire protection and adequate water systems with hydrants.

f. Continue to evaluate and amend, as necessary, development standards for location, building separations, structural design and detection hardware.

g. Require adequate visible designation of all streets, roads and buildings to the standards of the County Fire Warden or the local fire protection agency or authority.

Figure II-5
Peakload Water Supply System Guidelines*

LAND USE	FIRE FLOW SYSTEM**	
Residential Density	**Flow (gallons/minute) x**	**Duration (hours)**
up to 1 du/20 acre	***	***
>1 du/20 acre - 1 du/5 acre	750	1
>1 du/5 acre - 1 du/acre	750	2
>1du/acre - 2 du/acre	1000	2
>2 du/acre - 4 du/acre	1500	2
>4 du/acre - 7 du/acre	2000	2
>7 du/acre - 12 du/acre	2500	2
>12 du/acre	3000	3
Commercial	3000	3
Industrial	3500	3

*These guidelines were developed by the Office of Planning in conjunction with the County Fire Warden for fire protection in areas of the County where water systems do not exist.

**Based upon Uniform Fire Code calculations. Individual development requirements may vary according to structure square footage, spacing and construction material.

***In areas where water systems are not required, individual dwellings should generally have a minimum of 3,000 gallons of onsite storage for total peakload water supply.

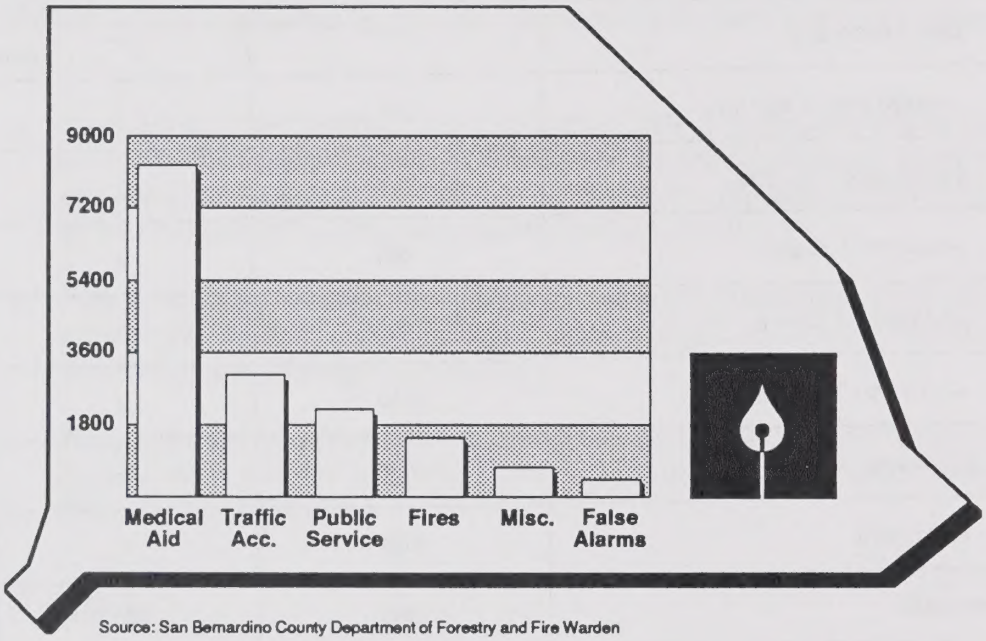
h. Plumb all new swimming pools and static water sources to allow connection to fire fighting equipment if requested by the County Fire Warden or the local fire protection agency or authority.

i. The County shall assure that successive uses of individual buildings comply with appropriate building and fire standards.

j. Known fire hazard information shall be included in the application for every discretionary or ministerial action.

k. Encourage adoption of common standards for fire safety and building construction.

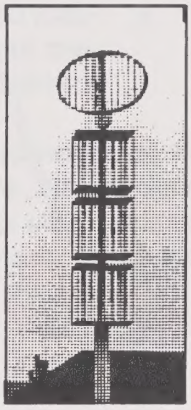
Number of responses by County Fire Department in 1987



Source: San Bernardino County Department of Forestry and Fire Warden

4. Wind/Erosion

Residents of San Bernardino County know that winds, and more particularly Santa Ana winds, pose a hazard in the County, destroying property, exacerbating fire hazards and disrupting transportation and utility services. Continued development of canyon mouths and foothill areas where the winds are most severe, assure that more residents will be exposed to this hazard. Since wind is a natural phenomenon that cannot be prevented, awareness of the hazard posed is primary. However, as discussed in the "Wind/Erosion Background Report" (under separate cover which is not adopted as part of the General Plan) there is relatively little information on wind as a hazard; there is not enough information to map. Beyond existing building and fire requirements (found in the Uniform Building Code (UBC), the Fire Hazard Overlay, etc.), public awareness of the problem, vigilance during high winds in impacted areas and continued study (of both the hazard and mitigation techniques) are methods currently available to reduce the risk of wind hazards. In addition, wind is a cause of erosion in the County. Therefore, erosion policies will also be included here.



Signs blown away due to Santa Ana Winds; San Bernardino

However, erosion is not only wind-generated. Natural causes include landslide, fire, flood and wind. Man-made causes include irresponsible grading and other construction practices, use of off-road vehicles and other indiscriminate disruption of fragile ecological surfaces. In the urban portions of the Valley area, especially at the base of the mountain ranges, erosion control is an important consideration of the individual property owner. In the desert areas, wind-blown sand is the most prevalent form of erosion. There are areas which cannot be used for development without extensive stabilization measures. While identification of all of these areas was beyond the scope of this issue, these areas should be delineated. And, severe erosion can be a problem anywhere in the County. In any area where precipitation combines with ground areas denuded of their natural covering, potential for erosion exists.

Eroded mountain top of Wilshire Peak; Yucaipa

Policies/Actions

WE-1 Because wind poses a hazard to County land uses, high wind areas shall be mapped as a Hazard Overlay when sufficient data and mapping are available. State-of-the-art wind mitigation building standards, including roofing requirements, shall be applied to those areas. The County will also:

a. Map high wind areas as part of the hazard overlay.

b. Conduct detailed mapping of potential blowsand hazard areas for use as a hazard overlay.

c. Map potential wind erosion areas on the basis of soil characteristics for use as a hazard overlay.

d. Adopt design measures for critical, essential, and high occupancy structures to minimize potential wind hazards such as damage to communication, utility, or structural features (e.g., glass facades).

e. Adopt design and/or upgrade measures for facilities identified as susceptible to wind hazards (such as utilities and communications equipment) to minimize potential impacts.

WE-2 Because developments can add to the wind hazard, due to increased dust, the removal of wind breaks, and other factors, the County shall require developments in areas identified as susceptible to wind hazards which are subject to discretionary permits to address site-specific analysis of:

a. Grading restrictions and/or controls on the basis of soil types, topography or season.

b. Landscaping methods, varieties, and scheduling to maximize successful revegetation.

c. Dust-control measures during grading, heavy truck travel, and other dust generating activities.

WE-3 Because erosion control is an important concern of the property owner and because many widely spread areas in the County are highly susceptible to erosion, the County shall:

a. Apply the provisions of the Revised Erosion and Sediment Control Ordinance Countywide.

b. Tailor grading, land clearance, and grazing to prevent unnatural erosion in erosion susceptible areas.

c. Establish an education program for home owners emphasizing land use for erosion control in conjunction with the Soil Conservation Service.

d. Restrict use of off-road vehicles in areas susceptible to erosion.

WE-4 Because specific mapping of erosion-susceptible areas Countywide is difficult to access, maps developed by the Resource Conservation Districts delineating erosion areas shall be adopted by the County. Until such time as maps can be incorporated into the Hazard Overlays, the Office of Building and Safety shall evaluate all ministerial and discretionary actions for minimization of erosion hazards.

WE-5 Because the San Bernardino County Flood Control District is responsible for debris basin construction and maintenance at the base of the mountains, development in these areas shall be coordinated with that agency.

Days of significant winds and their effect in the County since 1980

Date	MPH	Damage
11/17/80	90	7 fires, 1 injured
11/22/80	100	4 killed, 284 homes lost
2/22/81	63	Many injured, 14 homes damaged
1/8/82	100	Many injured, 7 homes damaged
12/8/82	80	Airports damaged, schools closed
2/18/88	78	100,000 w/o power, 5 trucks toppled

Source: San Bernardino County Department of Land Management

B. MAN-MADE HAZARDS

Similar to natural hazards, man-made hazards are also defined as conditions of potential danger or risk to life and health or property. However, man-made hazards result, not from acts of nature, but from acts of man and use of his technology. Three issues are addressed:

1. Noise
2. Aviation Safety
3. Hazardous Waste/Materials

This section satisfies mandatory requirements of the Noise Element. It also satisfies requirements for General Plan conformity with Airport Land Use Commission (ALUC) Law, Airport Approaches Zoning Law, and AB 2948, Chapter 1504, Statutes of 1986 (the Tanner Bill) for County Hazardous Waste Management Plans.

Goals

B-1 *Minimize the potential risks resulting from exposure of residents to man-made hazards in the following priority: loss of life or injury, damage to property, litigation, excessive maintenance costs and other social and economic costs.*

B-2 *Inform and educate the public in identification of risks from man-made hazards, methods available for their abatement, prevention, mitigation, avoidance and procedures to follow during emergencies.*

B-3 *Continuously integrate data on man-made hazards into adopted land use and overlay maps, policies and into review procedures for land use proposals and enforcement of development standards.*

B-4 *Establish comprehensive procedures for post-disaster planning in affected areas.*

1. Noise

The Noise Element is a State-mandated component of the General Plan. The purpose of this element is to establish uniformity of policy and direction concerning actions to minimize or eliminate excessive noise. It includes objectives, policies, standards, criteria, programs, diagrams and maps which are to be considered when decisions are made affecting the noise environment. A complete noise element with technical appendices, adopted by the Board of Supervisors as an independent document, is under separate cover. A summary of the Element and its policies are included here for the reader's convenience.

Noise is simply defined as unwanted sound. Physical health, psychological stability, social cohesion, property values, and economic productivity are affected by excessive amounts of noise. A more extensive discussion on the effects of noise is found in the Noise Background Report (under separate cover which is not adopted as part of the General Plan).

In addressing the regulation of noise to mitigate its negative effects, some quantification of noise intensity is required. Noise measurements are expressed in several ways. In this report the following are utilized:

dB(A) (A-Weighted Sound Pressure Level) - The sound pressure level, in decibels, as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound, placing greater emphasis on those frequencies within the sensitivity range of the human ear.

Ldn (Day-Night Noise Level) - The average equivalent A-weighted sound level during a 24-hour day obtained by adding ten decibels to the hourly noise levels measured during the night (from 10 pm to 7 am). In this way Ldn takes into account the lower tolerance of people for noise during nighttime periods.

CNEL (Community Noise Equivalent Level) - The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 a.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

SEL (Energy Equivalent Noise Level) (Sound Exposure Level) - The noise exposure level accumulated during a given event, with reference to a duration of one second. More specifically, SEL, in decibels, is the level of the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on the reference pressure of 20 micronewtons per square meter and reference duration of one second. SEL is commonly used to calculate Ldn when the noise source consists of individual noise events, such as those caused by railroad line operations or aircraft overflights.

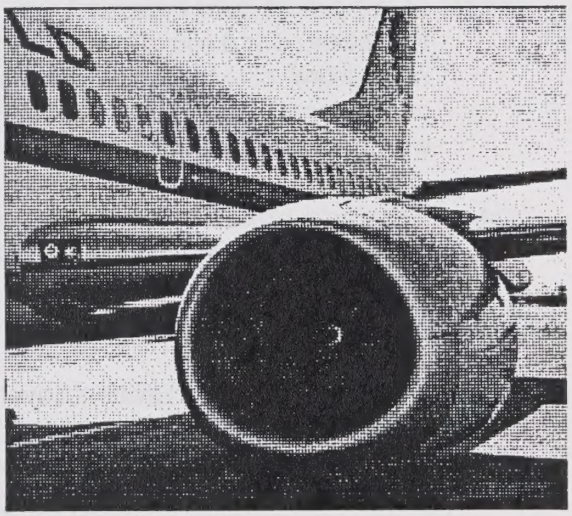
Leq (Equivalent Energy Level) - The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period, typically 1, 8 or 24 hours.

LMax (Maximum Sound Level) - A statistical value that represents the highest maximum sound level reading during a given period.

Ldn and CNEL are generally considered to be equivalent descriptors of the community noise environment within +/- 1.0 dB. State law requires that CNEL be used to quantify noise exposure resulting from the operation of civilian airports. Ldn is the descriptor preferred by the California Office of Noise Control and applied by all federal agencies.

To establish the current noise environment, several techniques were used. Computer modeling and field monitoring were both utilized for this study. Noise measurements provide the basis for both processes. The results of the analysis were then compared with accepted standards to determine where the County is affected by adverse levels of noise. This led to a description of a policy and action program designed to minimize (or eliminate) these adverse levels and prevent future problems from occurring.

All sources of noise within the County do not have contours that are mapped. However, every attempt has been made to document the noise atmosphere of the County. Given the vast area of the County, mapping existing and future **noise contours** for each affected road segment is impracticable and was not undertaken. Instead, a traffic noise exposure analysis for arterials was conducted. Day-night sound level (Ldn) contour locations are provided for every arterial for which the existing or projected traffic volume exceeds 5000 vehicles per day. The tabular lists of road segments are found in Appendix B of the complete Noise Element. Existing and future contours are found in the text of that document and a sample is included here as Figure II-6. Road segments below 5,000 Average Daily Traffic (ADT) were projected to have noise contours that fell entirely within the road right-of-way not affecting adjacent properties and were, therefore, not listed. A similar process was used to generate contours for railroad noise (Figure II-7).

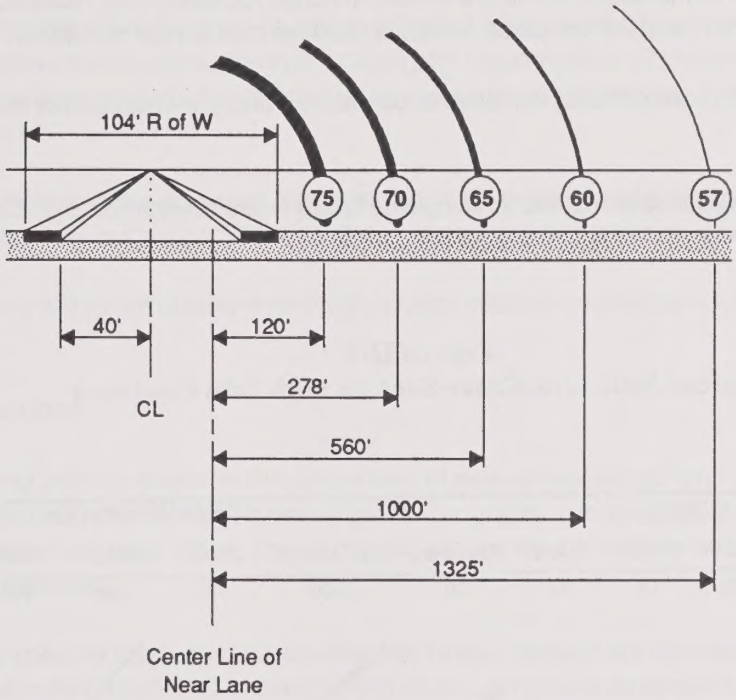


Airplane at Ontario International Airport with newer, quieter jet engines; Ontario

The railroad noise levels for freight operations are listed in tabular form in the Noise Element. The passenger railroad noise levels are negligible and not listed due to limited frequency of travel, length of trains and hours of operation. Existing and future railroad noise contours was determined to be too small to depict. There are no ground rapid transit systems existing within the County to be analyzed.

Figure II-6
Typical Major Highway Cross-Section with Ldn Contours

		TRUCK MIX			Ldn		DISTANCE TO CONTOURS, 1987				
Type	Grade	%MTr	%HTr	ADT	@50'	**80dB**	**75dB**	**70dB**	**65dB**	**60dB**	**57dB**
7	At	4.3	15.7	59,300	79.5	n/a	120	278	560	1000	1325



Typical: Arterial Reach - Route 15, N O Route 215

Note:

A. Noise contours are symmetrical about the roadway center line.

B. Types:

1 = 2 Lane Highway, 35mph	5 = 4 Lane Highway, 40mph
2 = 2 Lane Highway, 40mph	6 = 4 Lane Highway, 45mph
3 = 2 Lane Highway, 45mph	7 = 6 Lane Highway, 55mph

Aircraft Noise Contours were derived from existing studies, examination of flight data and some noise measurement. Noise contours for all public use airports and military facilities are found in Appendix C of the Noise Element and on the Hazards Overlay Maps.

Also included in the Noise Element are measurements of noise from typical stationary sources. Commercial and industrial uses, construction and recreational activities were

chosen to represent identified noise sources. Discussion of the computer models for generating such contours is also found in the complete Noise Element.

According to the community noise survey, circulation and transportation systems (roadways, airports and railroads) are the most significant noise producing activities within the County, and subject some areas to unacceptable levels.

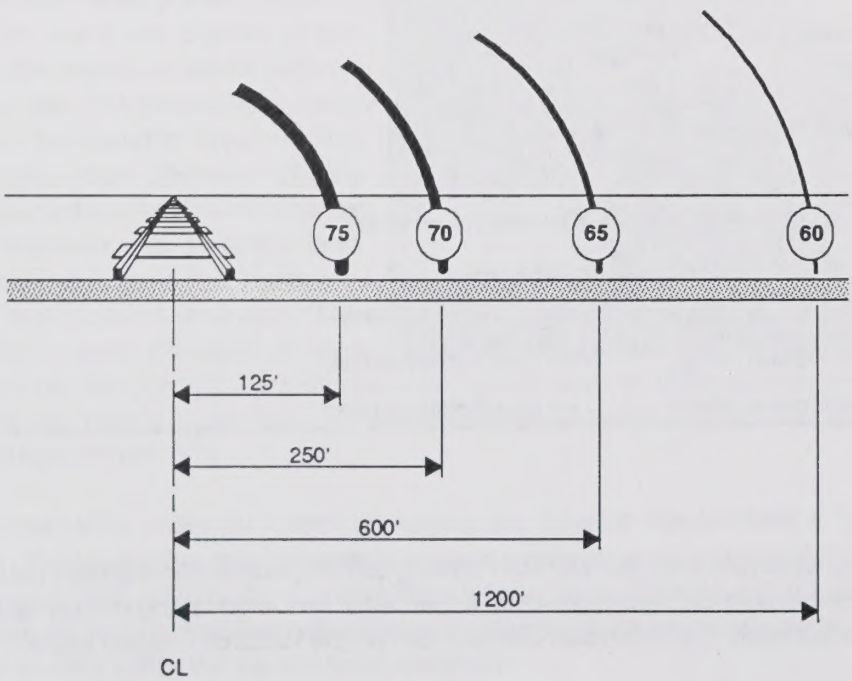
Point sources such as industrial, mining and recreational sites also produce noise levels of concern. Some key problem areas are wrecking yards, rockcrushing, racetracks, snow and water ski areas, outdoor concerts, shooting facilities and similar recreation facilities.

Additional problems are off-road vehicles, snowmobiles and the operation of specialized equipment.

A comprehensive delineation of the existing and future noise environment is found in the Noise Element.

Figure II-7
Typical Rail Line Cross-Section with Ldn Contours

	HOURS					DISTANCE TO CONTOURS, 1987			
Ave. Daily Count	7a-10p	10p-7a	Grade	Ave. Cars	Ave. Length	**75dB**	**70dB**	**65dB**	**60dB**
24	10	14	At	80	3600'	125	250	600	1200



Note: Noise contours are symmetrical about the track Center Line.

Goals

The overall purpose of the San Bernardino County Noise Element is to protect the citizens of the County from the harmful and annoying effects of exposure to excessive noise, and to protect the economic base of the County by preventing the encroachment of incompatible land uses within areas affected by existing noise-producing uses.

The general goals of the San Bernardino County Noise element are to:

B-5 *Develop and adopt specific policies and an effective implementation program to abate and avoid excessive noise exposures in the County by requiring that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.*

B-6 *Provide sufficient noise exposure information so that existing and potential noise impacts may be effectively addressed in the land use planning and project review processes.*

B-7 *Protect areas within the County where the present noise environment is within acceptable limits.*

Policies/Actions

The following policies focus on the prevention of new noise-related land use conflicts by requiring that all relevant development plans, programs and proposals be reviewed to determine whether such plans, programs and proposals adequately address noise and its potential effects.

The noise exposure maps contained within this Noise Element are intended for use by the County as a screening device in determining when a proposed development of residential or other noise-sensitive land uses may be exposed to excessive noise levels, and to provide guidance in the long range planning processes. Generally, the noise exposure maps provide a conservative (worst-case) assessment of noise exposure for the major noise sources identified for study during the preparation of the Noise Element. It is likely that other major sources of noise will be identified during the project review process. This will be especially true of industrial or commercial sources, since only a small sample of such sources were evaluated during the preparation of this document.

The information contained within the technical appendices of this document should be used as a guideline for determining whether reported noise exposure or proposed noise mitigation measures are likely to achieve the desired results. Control of noise at the source and through the thoughtful location and orientation of receiving uses should be given preference over the control of noise at the path of transmission through the use of noise barriers.

The following specific policies have been adopted to accomplish the goals of the Noise Element.

NO-1 Because excessive noise can interfere with sleep, speech and health, yet can be mitigated to acceptable levels through land use design requirements:

a. Areas within San Bernardino County shall be designated as "noise-impacted" if exposed to existing or projected future exterior noise levels from mobile or stationary sources exceeding the standards listed in Figures II-8 and II-9.

b. New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to the standards of Figures II-8 and II-9. Noise-sensitive land uses include residential uses, schools, hospitals, nursing homes, churches and libraries.

Figure II-8
Interior/Exterior Noise Level Standards - Mobile Noise Sources

LAND USE		Ldn (or CNEL), dB	
Categories	**Uses**	**Interior***	**Exterior****
Residential	Single and multi-family, duplex, mobile homes	45	60***
Commercial	Hotel, motel, transient lodging	45	60***
	Commercial retail, bank, restaurant	50	n/a
	Office building, research and development, professional offices	45	65
	Amphitheater, concert hall, auditorium, movie theater	45	n/a
Institutional/Public	Hospital, nursing home, school classroom, church, library	45	65
Open Space	Park	n/a	65

*Indoor environment excluding: bathrooms, kitchens, toilets, closets and corridors.

**Outdoor environment limited to:
- Private yard of single-family dwellings
- Multi-family private patios or balconies
- Mobile home parks
- Hospital/office building patios
- Park picnic areas
- School playgrounds
- Hotel and motel recreation areas

***An exterior noise level of up to 65 dB (or CNEL) will be allowed provided exterior noise levels have been substantially mitigated through a reasonable application of the best available noise reduction technology, and interior noise exposure does not exceed 45 dB Ldn (or CNEL) with windows and doors closed. Requiring that windows and doors remain closed to achieve an acceptable interior noise level will necessitate the use of air conditioning or mechanical ventilation.

Figure II-9
Hourly Noise Level Performance Standards - Locally-Regulated Sources*

	7am - 10pm		10pm - 7am	
LAND USE CATEGORY	Leq	Lmax	Leq	Lmax
Residential or other noise-sensitive receivers	55dBA	75 dBA	45 dBA	65 dBA
*Noise sources which are stationary and not pre-empted from local noise control. Pre-empted sources include vehicles operated on public roadways, railroad line operations and aircraft in flight.				+

c. When industrial, commercial or other land uses, including locally-regulated noise sources, are proposed for areas containing noise-sensitive land uses, noise levels generated by the proposed use shall not exceed the performance standards of Figure II-9 within outdoor activity areas. If outdoor activity areas have not yet been determined, noise levels shall not exceed the performance standards of Figure II-9 at the boundary of areas planned or zoned for residential or other noise-sensitive land uses.

d. Prior to approval of proposed development of new residential or other noise-sensitive land uses in a noise-impacted area or a new noise generating use in an area which could affect existing noise-sensitive land uses, an acoustical analysis shall be required. The appropriate time for requiring an acoustical analysis is during the environmental review process so that noise mitigation may be an integral part of the project design. The acoustical analysis shall:

   i) Be the responsibility of the applicant.
   ii) Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
   iii) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
   iv) Include estimated noise levels in terms of the descriptors shown in Figures II-8 and II-9 for existing and projected future (20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.
   v) Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance.
   vi) Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, acoustical information to

support a statement of overriding considerations for the project must be provided.

e. The County shall develop and employ procedures to ensure that requirements imposed pursuant to the finding of an acoustical analysis are implemented as part of the project review and building permit processes.

f. The County shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code (UBC). Title 24 requires that an acoustical analysis be prepared for all new developments of multi-family dwellings, condominiums, hotels and motels proposed for areas within the 60 dB Ldn (or CNEL) contour of a major noise source for the purpose of documenting that an acceptable interior noise level of 45 dB Ldn (or CNEL) or below will be achieved with the windows and doors closed. UBC Chapter 35 requires that common wall and floor/ceiling assemblies within multi-family dwellings comply with minimum standards for the transmission of airborne sound and structure-borne impact noise.

NO-2 Because County residents are exposed to vehicular noise sources in excess of acceptable levels the County shall:

a. Actively support enforcement of existing sections of the California Vehicle Code relating to adequate vehicle mufflers and modified exhaust systems.

b. Limit truck traffic in residential and commercial areas to designated truck routes; limit construction, delivery and through truck traffic to designated routes; and distribute maps of approved truck routes to County traffic officers.

NO-3 Because noise sources are transjurisdictional, San Bernardino County shall work to achieve maximum efficiency in abatement through inter- and intra-governmental coordination and public information through the following actions:

a. Consider the following noise mitigation measures in the design of new and the rebuilding of existing County streets and highways:

i) Alignment
ii) Barriers
iii) Lateral separation
iv) Vertical profile
v) Other appropriate noise attenuation techniques

b. Include, in the capital improvement budget, funds for construction of remedial mitigation measures for areas impacted by existing highways and streets according to the following priorities:

i) Degree of sensitivity
ii) Excess of the maximum allowable standards
iii) Length of time the noise impact existed

iv) Number of residential units

c. Examine the existing and projected future noise environment when considering amendments to the circulation system.

d. Compile and publish a list of standardized noise mitigation measures.

NO-4 Because County residents are exposed to levels considered to be excessive from stationary sources such as industrial, recreational and construction activities as well as mechanical and electrical equipment, the County shall enforce the Hourly Noise Level Performance Standards for Stationary and other locally regulated sources through development and implementation of a noise ordinance that will:

a. Be consistent with this component of the General Plan.

b. Include the development standards portion in the Development Code.

c. Establish a central authority in Environmental Health Services with the responsibilities of Noise Ordinance enforcement, noise monitoring, noise problems and programs.

d. Establish a County Noise Abatement Program including an ongoing evaluation program to catalog, evaluate and solve noise complaints, test noise reduction measures for effectiveness, refine mitigation measures, and assemble and study programs from the Environmental Protection Agency (EPA), State Office of Noise Control and other Federal, County, and State-related programs for input into the County Noise Abatement Program.

e. Develop an implementation chart identifying the responsibilities of each County division involved in the noise-related review process.

f. Require any project (new construction or additions) to meet the County Noise Ordinance standards as a condition of building permit approval.

g. Require developers to depict on any appropriate development application review, (i.e. zone change, subdivision, site approval, site plan and building plans) any potential noise sources known at the time of submission and mitigation measures that insure these noise sources meet County Noise Ordinance Standards. Such sources include but are not limited to the following:

i) Truck pick up and loading areas.
ii) Mechanical and electrical equipment such as air conditioning, swimming pool pumps and filters, spa pumps, etc.
iii) Exterior work areas.
iv) Exterior nuisances such as speaker boxes and outdoor public address systems.

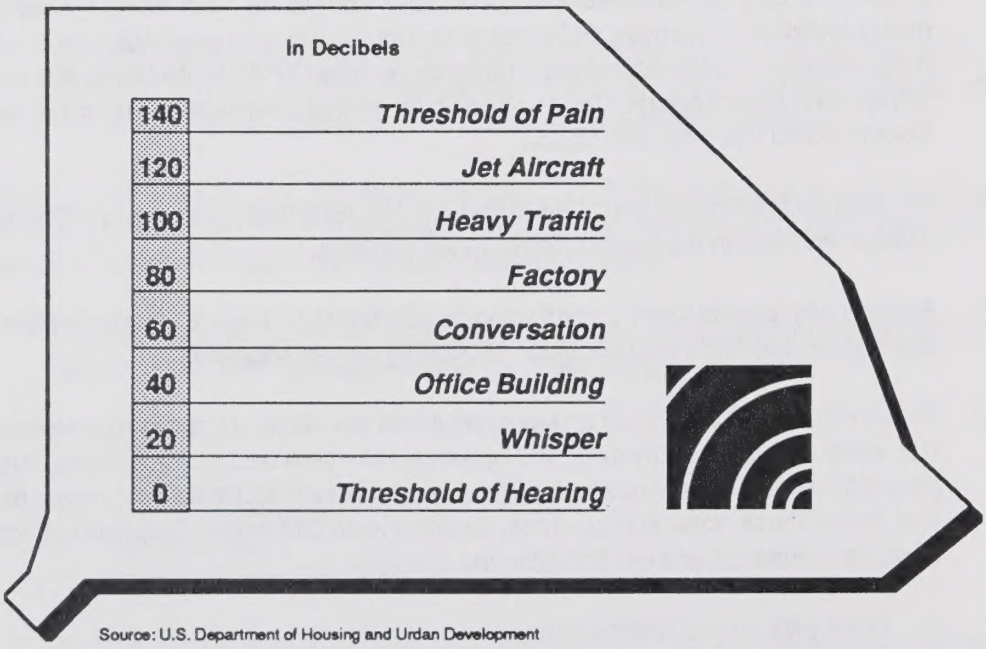
h. Condition subdivision approval adjacent to any developed/occupied noise sensitive land uses by requiring the developer to submit a construction related noise mitigation plan to the County for review and approval prior to issuance of grading permit. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:

   i) Temporary noise attenuation fences.
   ii) Preferential location of equipment.
   iii) Use of current technology and noise suppression equipment.

NO-5 Because County residents are exposed to vehicular noise sources in excess of acceptable levels, new equipment and vehicles purchased by San Bernardino County shall comply with noise level performance standards consistent with the best available noise reduction technology.

NO-6 Because the noise environment is dynamic, the County shall periodically review and update the Noise Element to ensure that noise exposure information and specific policies are consistent with changing conditions within the County and with noise control regulations enacted after the adoption of this element.

Common sounds and their decibel levels.



Source: U.S. Department of Housing and Urdan Development

2. Aviation Safety

There are major military installations, 15 **public use airports**, 27 private airports and various heliports in the County. Military supersonic and low altitude flight corridors cover large portions of the County under a variety of jurisdictional controls. All of these present potential land use compatibility/safety issues as air traffic increases and are designated on the Hazards Overlay Maps. Noise related aviation hazards are included in the Noise Element.

With the increase in urban development and resultant encroaching populations, land use compatibility with aviation facilities is becoming a more important issue, not only for the safety of adjacent residents, but also for the protection of aviation facility viability and national defense needs. In addition, expansion of existing facilities, such as Chino Airport, involve closer coordination with other jurisdictions.

High-speed military aircraft over the snow-covered San Bernardino Mountains; Lucerne Valley

Existing review procedures including safety overlays and airport safety reviews are in need of consolidation and coordination. In addition, restriction/conditioning of some uses in impacted high risk areas may be appropriate, as well as continued land exchange programs, with the Bureau of Land Management, to minimize potential incompatibilities with aviation activities.

Policies/Actions

AV-1 Because airports do not own or control all the land necessary to ensure the safety of their operations and adjacent land uses, the County shall:

a. Adopt the following Land Use Compatibility/Aviation chart (Figure II-10) as applicable to all discretionary and ministerial actions for **Safety Overlay Districts** delineated on the Hazards Overlay Maps. District Boundaries are defined as follows:

   i) That area which is defined within an adopted Airport Comprehensive Land Use Plan.

   ii) That area which is defined within an adopted Interim Airport Land Use Plan (where there is no adopted Airport Comprehensive Land Use Plan).

   iii) That area which is defined within a low altitude/high speed corridor designated for military aircraft operations.

Figure II-10
Land Use Compatibility in Aviation Safety Areas

	SAFETY AREA			
LAND USE	1	2	3	4
Residential single-family, duplex, multi-family, mobile homes	Clearly Unaccept.	Clearly Unaccept.	Norm. Accept.*	Norm. Accept*
Hotels, motels, transient lodging	Clearly Unaccept.	Clearly Unaccept.	Norm Accept.	Clearly Unaccept.
Schools, nursing homesm libraries, churches, hospitals	Clearly Unaccept.	Clearly Unaccept.	Norm. Accept.	Clearly Unaccept.
Auditoriums, concert halls, amphitheaters	Clearly Unaccept.	Clearly Unaccept.	Norm Accept.	Clearly Unaccept.
Sports arenas, outdoor spectator sports	Clearly Unaccept.	Clearly Unaccept.*	Norm. Accept.*	Clearly Unaccept.*
Playground, neighborhood parks	Clearly Unaccept.	Norm. Unaccept.	Norm Accept.	Norm. Accept.
Golf courses, riding stables, water recreation, cemetaries	Norm. Unaccept.	Norm. Accept.	Norm Accept.	Clearly Accept.
Office Buildings, personal, professional	Clearly Unaccept.*	Clearly Unaccept.*	Norm. Accept.*	Clearly Unaccept.*
Commercial-retail, movie theaters, restaurants	Clearly Unaccept.*	Clearly Unaccept.	Norm. Accept.	Clearly Unaccept.
Commercial-wholesale, some retail, industry, manufacturing, utilities	Clearly Unaccept.	Norm. Accept.	Norm. Accept.	Norm. Accept.
Livestock, farming, anilmal breeding	Norm. Unaccept*	Norm. Accept.*	Clearly Accept.*	Clearly Accept.
Agricluture (except livestock), mining and fishing	Norm. Accept.	Clearly Accept.	Clearly Accept.	Clearly Accept.
Extensive natural recreation	Norm. Accept.	Clearly Accept.	Clearly accept.	Clearly Accept.
Maximum gross density recommended (persons per acre)	.5	25	No Limit	10**
Maximum assembly recommended (persons)	10	100	No Limit	100**

Safety Area 1-
Area at either end of a runway inside and outside of the airport boundaries, and labeled clear zone as defined be FAA or Military ALCUZ studies.
Safety Area 2-
Area outside the airport boundaries but within the 65 Ldn noise contour
Safety Area 3-
Varies with the airport but generally: a) For airports with a 65 Ldn noise contour, area outside the 65 Ldn noise contour; b) For airports without the 65 Ldn noise contoru, area within one mile of the outer boundaries of the airport ownership.
Safety Area 4-
Varies with the facility: China Lake and George- one mile outside the 65Ldn contour. Norton - within a 5 mile radius of the base. Low Altitude Corridors - entire area beneath the corridors.

Clearly Acceptable-
No Restrictions.
Normally Acceptable-
Restricted development undertaken only after detailed analysis and satisgactoruy mitigation measures are initated.
Normally Unacceptable -
No new development.
Clearly Unacceptable -
New construction or development should generally not be undertaken. Existing uses should be relocatied.

+

*Some specific uses in this group may meet density criteria and be more acceptable.

+

**Applies for low altitude flight corridor only. Unlimited occupancy in other Safety Area 4 locations.

+

(b) Airport Safety Review Areas are categorized as follows:

i) That area which is defined within an adopted Airport Comprehensive Land Use Plan.

ii) Where there is no adopted Airport Comprehensive Land Use Plan they are generally categorized as follows:

(1) Airport Safety Review Area 1 (AR1) shall be those areas at either end of a runway, outside the airport boundaries, that corresponds with the FAA Runway Protection Zone (per FAR Part 152) for each runway end. Also it is any area identified by the Interim Airport Land Use Plan as a crash hazard zone or as a touchdown pad and peripheral area for a heliport.

(2) Airport Safety Review Area 2 (AR2) shall be those areas within the adopted 65 CNEL (Community Noise Equivalency Level) or Ldn (Day-Night Average Sound Level) noise contours.

(3) Airport Safety Review Area 3 (AR3) shall be one of the following areas:

- The area outside the 65 Ldn noise contour within one mile of that line, for those non-military airports with adopted noise contours. In such areas, Airport Safety Review Area 3 shall encompass the boundaries prescribed in Federal Aviation Regulations Part 77 which depicts imaginary surfaces for "objects affecting navigable airspace," as applicable to the specific FAA approved Airport Layout and Approach Plan. The imaginary surfaces are:

- Approach Surface - Extending outward and upward from the end of the primary runway surface along a slope of 20 to 1 (20:1) and extending for a horizontal distance of five thousand (5,000) feet. (Slope and distances increase depending on precise approach existing or planned for the particular runway.)

- Horizontal Surface - A horizontal plane one hundred fifty (150) feet above the established airport elevation. The perimeter is constructed by swinging arcs of five thousand (5,000) feet, [ten thousand (10,000) feet for runways other than utility or visual] radii from the center of each of the primary runway surfaces (i.e., beginning points of Safety Review Area I) and connecting the adjacent arcs by lines tangent to those arcs.

- Conical Surface - a surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 (20:1) for a horizontal distance of four thousand (4,000) feet. (Distances increase for military airports)

- The area within one mile of the outer boundaries of the airport ownership, for those non-military airports without adopted noise contours (e.g. 65 Ld
- The area outside the 65 Ldn noise contour for a heliport but within one half (1/2) mile of such line.

(4) Airport Safety Review Area 4 (AR4) (for Military installations only) shall encompass the area outside the 65 Ldn contour designated for military airports and low-altitude/high speed corridors designated for military aircraft use. AR4 varies with the facility as follows:

- China Lake: one mile outside the 65 Ldn Contour Line.
- Low Altitude Corridors: entire area beneath the corridor.

b. Evaluate existing land uses for compatibility and amend through the General Plan Amendment process if an unmitigatable, unacceptable situation exists.

c. Continue Airport Safety Reviews of all land uses proposed within and Airport Safety Area in the County; updating existing and initiating new comprehensive Land Use Plan studies for each public use airport in the County. The following review standards shall be included:

i) Safety areas shall be designated and mapped.

ii) Airport Safety reviews shall be required by for all discretionary projects (as defined by CEQA) proposed in the County within a Airport Safety area, to include:

- All airport creation or expansion proposals.
- Projects and land use recommendations outside designated Safety Areas when statistical analysis of accidents from an airport facility suggest this need.
- All procedure for proposed development around heliports in the County.

iii) All projects within Safety Areas I, II and III shall be referred to the affected airport facility.

iv) Regulations of **Federal Aviation Regulations (FAR) Part 77** shall be applied including height restrictions.

v) Smoke, glare and electronic interference shall be restricted.

vi) Storage of fuel and other explosive and/or flammable materials in a manner which may be hazardous to aviation operations shall not be above ground in Safety Areas I, II, and III.

vii) Standards for development of all conditionally approved projects may be derived from any or all of the following:

- Applicable, adopted Airport Comphrehensive Land Use Plans and Interim Airport Land Use Plans.
- California State Airport Land Use Planning Handbook.
- The San Bernardino County Development Code.
- Regulations and development standards of local jurisdictions.

d. Adopt the land use compatibility charts in this section, as well as those contained in the applicable, adopted Airport Comprehensive Land Use Plans, to promote consistent review of these materials in the land use planning process.

e. Any requirements resulting from the Airport Safety Review shall be incorporated into the project design and/or conditions of approval.

AV-2 Because supersonic and low altitude flight corridors pose a hazard to underlying properties, the Bureau of Land Management land tenure exchange program (the low to medium altitude supersonic corridor, and the Precision Impact Range Area, on the Safety Hazard Overlays shall be continued and encouraged.

AV-3 Because military aviation facilities represent both a valuable County asset as well as a risk to County residents:

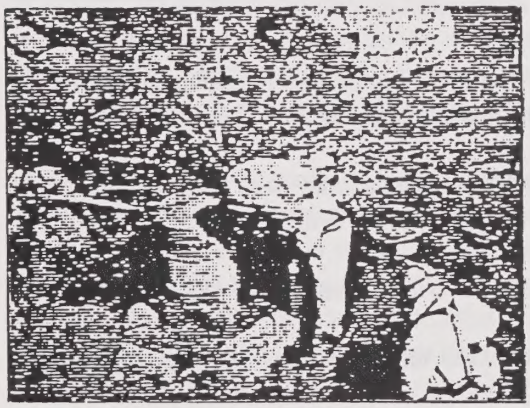
a. All military facilities shall be considered during any review processes for discretionary or ministerial actions to protect them from unnecessary encroachment.

b. All discretionary projects within Safety Areas I, II and IV shall be reviewed by the appropriate military facility. (There is no Safety Area III designated around military airport facilities.)

3. Hazardous Waste/Materials

Proper hazardous waste management constitutes one of the State's major environmental concerns. State-wide recognition of the need for better methods of hazardous waste management came about from the intense media attention on improper disposal practices. Hazardous chemicals play an important role in our modern society. They contribute to the manufacture of a vast array of consumer products (i.e., televisions, computers, automobiles, and medicines) and the convenience of consumer services (i.e., dry cleaners, automotive repair). While these goods and services add to our quality of life, they also cause the generation of hazardous waste. Reducing our reliance on hazardous materials should reduce the generation of hazardous waste. Hazardous waste will continue to be generated, however, since some materials have no substitutes.

San Bernardino County generates about 65,000 tons of hazardous waste per year. The County's waste stream represents about 5 percent of the wastes generated in the Southern California region. The major categories of waste produced in the County include metal containing liquids, waste oil, oily sludges, and baghouse waste. These wastes come from a variety of industries ranging from small businesses, such as automotive services and plating companies, to large industries like steel manufacturing.



Investigators inspect abandoned 55-gallon drums; Lytle Creek

AB 2948 (Chapter 1504, Statutes of 1986), commonly known as the Tanner Bill, authorized counties to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous wastes. On March 31, 1987, the County of San Bernardino Board of Supervisors authorized the preparation of the County HWMP. The preparation of the HWMP included extensive public participation. Consistent with state law, an advisory committee was established to advise County staff and local government officials on issues pertaining to management of hazardous wastes. The County HWMP was adopted by the County of San Bernardino Board of Supervisors and approved by the California Department of Health Services in February 1990.

The County HWMP serves as the primary planning document for the management of hazardous waste in San Bernardino County. The County HWMP identifies the types and amounts of wastes generated in the County; establishes programs for managing these wastes; identifies an application review process for the siting of specified hazardous waste facilities; identifies mechanisms for reducing the amount of waste generated in the County; and identifies goals, policies and actions for achieving effective hazardous waste management.

In addition, a facility for the disposal of low level radioactive waste had been proposed in the Ward Valley area of the County as the preferred site. The project is currently

undergoing environmental review (EIR and EIS) by the State Department of Health Services (DHS) and the Bureau of Land Management (BLM) and a license application has been submitted to the DHS. This site is expected to meet federal directives (under the Low Level Radioactive Waste Policy Act of 1980) that each state must dispose of all low level waste generated within its borders, for California and, under agreement, Arizona and the Dakotas. Low level radioactive waste is generally material that has become contaminated by radioactive material used in medical practice and scientific research, in some industrial processes and in nuclear power plants. The Background Appendix contains additional information on the Low Level Radioactive Waste (LLRW) facility. The County Hazardous Waste Management Plan is the Background Appendix for the hazardous waste component of this section.

Goals

B-8 *To establish an effective and expeditious* application review *process for siting* specified *hazardous waste facilities that includes extensive public participation.* (G-5-1)*

B-9 *To minimize the generation of hazardous waste in San Bernardino County, to the extent possible. (G-4-1)*

B-10 *To apply a uniform set of criteria to the siting of specified hazardous waste facilities in the County for the protection of the public health and safety and the environment. (G-5-2)*

B-11 *To ensure coordination among agencies and County departments in the review of all specified hazardous waste applications within the County. (G-5-3)*

B-12 *To protect vital groundwater resources for present and future beneficial uses. (G-5-4)*

B-13 *To reduce the risks posed by the storage of hazardous substances in above ground tanks and containers. (G-6-1)*

B-14 *To minimize the threat to residential areas from the use of hazardous materials. (G-6-3)*

B-15 *To ensure that businesses locating within the County incorporate available risk management and waste minimization practices into their operations. (G-8-1)*

B-16 *To minimize the risk of exposure to hazardous substances by the residential and immobile populations. (G-8-2)*

B-17 *To ensure the safe transportation of hazardous materials and waste in and through San Bernardino County. (G-10-1)*

B-18 *To ensure that environmental review is conducted for projects proposed on sites which have been identified as contaminated. (G-12-3)*

B-19 *To include public involvement in the review of applications for specified hazardous waste facilities. (G-13-2)*

** Policy number found in HWMP*

The following are the goals, policies/actions from the Hazardous Waste Management Plan. The HWMP goal and policy numbers are shown in parenthesis after the corresponding text.

Policies/Actions

The policies contained in the HWMP are expected to provide the basis for mitigation of all potentially adverse impacts related to hazardous waste services and facilities to levels of insignificance (Class II).

Project-specific mitigation measures developed for the proposed LLRW project should augment state and federal policy mitigation measures and prevent the occurrence of significant impacts related to the disposal of these radioactive wastes in the County.

HW-1 Because reducing the amount of waste generated in this County is an effective mechanism for reducing the potential impact of these wastes to the public health and safety and the environment, and because legislation encourages the reduction, to the extent feasible, of hazardous waste, this jurisdiction shall encourage and promote practices that will, in order of priority: 1) reduce the use of hazardous materials and the generation of hazardous waste at their source; 2) recycle the remaining hazardous wastes for reuse; and 3) treat those wastes which cannot be reduced at the source or recycled. Only residuals from waste recycling and treatment shall be land disposed. (P/A-4-2)

HW-2 Because specified hazardous waste facilities shall only be sited in areas where land uses have been deemed compatible with such facilities by the local jurisdiction, an applicant for a specified hazardous waste facility must apply for a Conditional Use Permit/Site Approval and a zoning amendment. The zoning amendment applies the Specified Hazardous Waste Facility overlay (as defined in HW-5) to the project site and buffer area. The applicant shall meet all provisions of the specified hazardous waste facility overlay district (see Policy HW-5) as well as other general plan and ordinance provisions. (P/A-5-1)

HW-3 Because the evaluation of a project application is a costly and time consuming effort and the public involvement demands a large expense,

a. The applicant shall fund the public notification efforts including public hearing notices to residents and property owners within 3000 feet of the proposed project boundary, legal and display advertisements in local newspapers and a paper of general circulation, and a sign (24 sq. ft.) to be displayed on or near the project site (pursuant to the Government Code, Section 65090).

b. The applicant shall be required to fund permit review activities pursuant to Government Code Section 65941.5 and the Health and Safety Code, Section 25199.7. (P/A-5-2)

HW-4 Because the County recognizes its responsibility for siting needed specified hazardous waste facilities proposed in environmentally sound locations, this County will consider applications for specified hazardous waste facilities. Proposals to site such facilities in the County must include applications for a Conditional Use Permit/Site Approval and for a

specified Hazardous Waste Facility overlay (see HW-5). A decision on the applications will be based on making the following findings:

a. The proposed project is consistent with the provisions of the General Plan, Development Code (zoning ordinance), the CHWMP including the siting criteria, and the Public Resources Code (Section 21000, et. seq.).

b. The facility location and/or design adequately protects public health, safety, and the environment.

c. The project is proposed in an area where present and future surrounding uses are compatible with the specified hazardous waste facility.(P/A-5-3)

HW-5 Because local land use plans and zoning ordinances are required by state law to specifically address the permitting of specified hazardous waste facilities and such plans and ordinances do not address requirements for these facilities, and because applicants for specified hazardous waste facilities are required to apply for a project-specific request to include the hazardous waste facility overlay on the project site and buffer zone and existing ordinances do not define or specify the requirements of such an overlay, this jurisdiction shall amend the Development Code (or Zoning Ordinance) to require all specified hazardous waste facilities to be permitted only with an approved Conditional Use Permit/Site Approval in areas with a zoning overlay of Specified Hazardous Waste Facility.

The overlay shall be applicable to all specified hazardous waste facility applications. The purpose of the overlay is to ensure that facilities are sited in areas that protect public health, safety, welfare, and the environment; to assign the specified Hazardous Waste Facility overlay to the project site and buffer so that incompatible uses cannot be permitted in the future; to identify permitted uses of the overlay; and to outline the permit review procedures. The Development Code (or zoning ordinance) shall define the Specified Hazardous Waste Facility overlay as containing the following:

a. A requirement that specified hazardous waste facilities may locate in certain land use districts (or zone) with an approved Conditional Use Permit/Site Approval and Specified Hazardous Waste Facility Overlay. Land disposal facilities and incineration facilities should locate in Resource Conservation Districts (or zones) with an approved Specified Hazardous Waste Facility Overlay. Treatment, incineration, recycling, storage, and transfer facilities should locate in Regional Industrial districts (heavy industrial zone or equivalent) with an approved Specified Hazardous Waste Facility Overlay. Incineration facilities shall not, however, be located in areas where emissions from the facility could directly impact food crops or livestock. (See discussion in Section 5.3.1 of the County HWMP.)

b. The siting criteria presented in this chapter. The criteria shall be adopted as development standards that shall be met along with other policies of the Development Code (zoning ordinance) before a facility is approved. Compliance with the siting criteria shall be evaluated at the time of permitting.

c. The application procedures set-out in AB 2948 (Chapter 1504, Statutes of 1986) for the review of specified hazardous waste facility applications.

d. A requirement that all specified hazardous waste facility applications are subject to a Special Use Permit with a copy of the disclosure statement required by Health and Safety Code Section 25200.4. The purpose of the Special Use Permit shall be to evaluate the operation and monitoring plan of the facility, to ensure the facility has adequate measures for monitoring on-going impacts to air quality, groundwater, and environmentally sensitive resources, to evaluate the types and quantities of wastes that will be treated or disposed of at the facility, and to require periodic inspections of the facility to ensure conditions of approval are carried out.

e. A requirement that all specified hazardous waste facility applications include information about the project proponent's past business practices with a copy of the disclosure statement required by Health and Safety Code Section 25200.4.

f. Discretionary application review requirements to ensure developers are aware of the different studies that will be required in the environmental analysis when assessing the merit of facility applications. A reporting and monitoring program shall be adopted to mitigate or avoid significant environmental impacts as required by AB 3180 (Chapter 1232, Statutes of 1988). The different issues that must be studied consist of, but are not limited to, the following:

   i) An analysis of the project's potential impact to surface and groundwater resources as well as public water supplies. The study shall identify monitoring and mitigation measures that ensure protection of vital surface and groundwater resources for the life of the project.

   ii) An evaluation of the project's impact to air quality and the consistency of the project with air quality regulations and the local air quality plans. The evaluation must consider toxic air contaminants, wind patterns, and an assessment of the project's impact to Prevention of Significant Deterioration and non-attainment areas.

   iii) An analysis of potential mineral deposits through a site characterization study.

   iv) A review of the adequacy and capacity of the proposed transportation routes including an identification of highway accident rates. (Refer to Chapter 10 P/A-10-3,of the County HWMP for other issues to address in the study.)

   v) An assessment of risk on the population that evaluates the physical and chemical characteristics of the specific types of wastes which will be handled, the design features of the facility, an evaluation of potential air emissions from the proposed facility, and any need for buffers from residences, immobile populations, and environmentally sensitive resources.

   vi) If a facility proposes to handle acutely hazardous waste, an analysis of the maximum credible accident may be necessary pursuant to AB 3777 (Chapter 1260, Statutes of 1986). The study shall take into consideration the quantity

and types of wastes that could be received at the facility, the design features, and the planned operational practices at the facility. Based on the above items, the study shall provide an estimate of the distance over which any effects would carry, options for reducing the risk, and procedures for dealing with the effects, including recommendations for an appropriate buffer distance.

vii) An evaluation of cultural, archeological, and paleontological resources on the project site and surrounding buffer. (P/A-5-4)

SITING CRITERIA FOR SPECIFIED HAZARDOUS WASTE FACILITIES

(Refer to Policies HW-5 and HW-7)

PROTECT THE RESIDENTS OF SAN BERNARDINO COUNTY

1. PROXIMITY TO RESIDENCES

a. A 2000 foot buffer zone from residences shall be required for the permitting of any hazardous waste residual repository unless the owner demonstrates to the satisfaction of the State Department of Health Services that a buffer zone of less than 2000 feet is adequate for the protection of public health and safety. To determine the appropriate buffer, a risk assessment shall be required which considers the physical and chemical characteristics of the specific type of wastes that will be handled, the design features of the facility, and any need for buffering residential areas or other sensitive areas from adverse emissions from a proposed facility.

b. A risk assessment shall be required when permitting any treatment, recycling, storage, and transfer facilities. The risk assessment should consider the physical and chemical characteristics of the specific type of wastes that will be handled, the design of the facility, and any need for buffering residential areas or other sensitive areas from potential accidents or adverse emissions from a proposed facility.

2. PROXIMITY TO IMMOBILE POPULATIONS

Specified hazardous waste facilities shall be sited so that no significant risk is presented to the immobile population. An adequate buffer between the hazardous waste facility and the immobile population shall be established by a risk assessment at the time of permitting. The risk assessment shall consider the physical and chemical characteristics of the specific types of wastes which will be handled and the design features of the facility and proximity to immobile populations. Immobile populations include schools, hospitals, convalescent homes, prison facilities, facilities for the mentally ill, etc.

3. PROXIMITY TO PUBLIC FACILITIES

Specified hazardous waste facilities should be sited in such a manner as they do not adversely impact the public health and safety of large numbers of people in public areas or people in public facilities. An adequate buffer shall be determined by a risk assessment at the time of permitting.

4. PROVISION OF PUBLIC SERVICES

Specified hazardous waste facilities should be located in areas where emergency response capabilities and public water and sewer services are available. When facilities are located in desert or rural areas where public services are not readily available, privately-owned on-site water, sewer, and emergency services (self-sufficient services) may be used.

ENSURE THE STRUCTURAL STABILITY OF THE FACILITY

5. FLOOD PLAIN AREAS

a. Residual repositories may be located in areas subject to 100-year events provided such facilities meet the requirements of the RWQCB pursuant to CCR, Title 23, Subchapter 15, Section 2531.

b. Treatment, recycling, storage, and transfer facilities may be located in areas subject to 100-year flooding if designed, constructed, operated, and maintained to prevent failure due to such events. Flood plain areas include areas subject to flooding by dam or levee failure and natural causes such as river flooding, rainfall or snowmelt, tsunamis, seiches and coastal flooding.

6. PROXIMITY TO ACTIVE OR RECENTLY ACTIVE FAULTS

No specified hazardous waste facility should be placed within 200 feet of an active or recently active fault. (California Code of Regulations (CCR), Title 22, Section 66391 (a) (11) A (1) and (2).

7. UNSTABLE SOILS

a. Residual Repository shall not be located in areas of potential rapid geologic change (Title 23, Subchapter 15, Section 2 of the CCR).

b. Treatment, recycling, storage, and transfer facilities may be located in areas of potential rapid geologic change if designed, constructed, maintained, and operated to prevent failure as a result of such changes (Title 23, Subchapter 15, Section 2531 (e) of the CCR).

PROTECT GROUNDWATER QUALITY

8. DEPTH TO GROUNDWATER

   a. Residual Repository shall be located in areas which meet the requirements of Title 23, Subchapter 15, Section 2531 (a) of the CCR and which meet the siting requirements of the State Water Resources Control Board.

   b. Treatment, recycling, storage, and transfer facilities may be located in high groundwater areas if engineered design of the containment structure is capable of withstanding failure because of geologic or soil failures which may arise.

9. MAJOR RECHARGE AREAS FOR AQUIFERS

   a. Residual Repository should be prohibited within any area known or suspected to be supplying principal recharge to a regional aquifer as defined in state, regional, or general plans.

   b. Treatment, recycling, storage, and transfer facilities may be located in principal recharge areas if facilities are designed, constructed, maintained, and operated to prevent accidental releases.

10. PERMEABILITY OF SURFICIAL MATERIALS

   a. Residual Repository shall be located in areas where underlying geology provides impermeability meeting the requirements of the SWRCB (pursuant to Title 23, Subchapter 15, Section 2531 (b) (1) of the California Code of Regulations).

   b. Treatment, recycling, storage, and transfer facilities may be sited in areas where soils are permeable or adequate engineered features such as spill containment, monitoring, and inspection measures are included in the project design and construction.

PROTECT AIR QUALITY

11. NONATTAINMENT AIR AREAS

   Specified hazardous waste facilities may be located in nonattainment areas if the facilities meet the plans and regulations of the air quality agency of each district, and a risk assessment shows that this contribution is not significant when compared to the emissions from transportation of hazardous waste out of this area.

12. CRITERIA POLLUTANTS IN PREVENTION OF SIGNIFICANT DETERIORATION (PSD) AREAS

   Specified hazardous waste facilities may be located in PSD areas if facilities meet the plans and regulations of the air quality agency of each district. These facilities, however, may not be located near or within national parks, wilderness and memorial areas, and other similarly dedicated areas, as specified in the Clean Air Act.

PROTECT ENVIRONMENTALLY SENSITIVE AREAS

13. WETLANDS

Specified hazardous waste facilities shall be prohibited from impairing the viability of wetlands such as saltwater, fresh water, and brackish marshes, swamps, and bogs inundated by surface or groundwater with a frequency to support, under normal circumstances, prevalence of vegetative or aquatic life which requires saturated soil conditions for growth and reproduction, as defined in general, regional, state, and federal plans. A protective buffer zone shall be established based on a biological resource study and risk assessment conducted at the time of permitting.

14. HABITATS OF THREATENED, RARE, OR ENDANGERED SPECIES

Specified hazardous waste facilities shall be prohibited from impairing the viability of critical habitats of threatened, rare, or endangered species as defined in general, regional, state, and federal plans. A protective buffer zone shall be established based on a biological resource study and risk assessment conducted at the time of permitting.

15. PRIME AGRICULTURAL LANDS

Specified hazardous waste facilities may not be sited on prime agricultural lands as defined in California law and adopted local land use plans unless an overriding public need is served. When siting hazardous waste management facilities in these areas, overriding public service needs must be demonstrated.

16. RECREATIONAL, CULTURAL, OR AESTHETIC RESOURCES

Specified hazardous waste facilities shall not be located in recreational, cultural, or aesthetic resource areas except low volume transfer and storage facilities which are necessary to handle hazardous waste generated by visitors, workers, or residents in these areas.

Recreational, cultural, and aesthetic resource areas include public and/or private lands having local, regional, state, or national significance, value or importance such as: national, state, regional county and local parks and recreational areas; historic resources; wild and scenic rivers; scenic highways; ecological preserves; public and private preservation areas; and other lands of local, regional, state, or national significance.

17. AREAS OF POTENTIAL MINERAL DEPOSITS

Specified hazardous waste facilities should not be located so as to preclude extraction of minerals necessary to sustain the economy of the State.

LAND USE RESTRICTION

18. MILITARY LANDS

Public specified hazardous waste facilities shall not be sited on military lands pursuant to DOD policy.

ENSURE SAFE TRANSPORTATION OF HAZARDOUS WASTE

19. PROXIMITY TO AREAS OF WASTE GENERATION

a. Land disposal facilities may be located more distant from waste generation sources than other facilities because of their requirement for larger land and buffer areas.

b. Treatment, recycling, storage, and transfer facilities should be close to hazardous waste generation sources to minimize the risks of transportation.

20. PROXIMITY TO MAJOR TRANSPORTATION ROUTES

Specified hazardous waste facilities should have good access to and from major transportation routes.

21. MINIMIZE TRANSPORT THROUGH MINOR ROUTES

Specified hazardous waste facilities should be sited so that road networks leading to major transportation routes do not pass through residential neighborhoods, should minimize residential frontages, and should be demonstrated to be safe with regard to road design and construction, accident rates, excessive traffic, etc.

HW-6 Because several agencies (i.e. Air Quality agencies, Regional Water Quality Control Board, Department of Health Services) and local governments (County, cities and Special Districts) will be involved in the permitting of specified hazardous waste facilities, this jurisdiction shall request all applicable agencies and local government departments to participate in a meeting of a specified hazardous waste facility application at the pre-application stage (as required by Health and Safety Code, Section 25199.7 [e]). The purpose of the meeting is to discuss and document issues of concern to all appropriate agencies as well as application review requirements and time frames. This jurisdiction will assist the applicant in developing a matrix of all reviewing agencies and agency requirements before a formal application is accepted. (P/A-5-5)

HW-7 Because specified hazardous waste facilities have a potential for adverse impacts on the environment, all applications shall comply with the policies of the CHWMP and the siting criteria and shall be the subject of environmental analysis. The environmental analysis shall be done as a consolidated effort among applicable County Departments. Compliance with the siting criteria shall be evaluated in the environmental analysis. (P/A-5-6)

HW-8 Because a significant portion of County land falls under federal jurisdiction, the Bureau of Land Management (BLM), U.S. Forest Service, and the Department of Defense (DOD), and the policies of DOD exclude the development of specified hazardous waste facilities, and because Indian lands comprise another significant component and Native American Tribal Councils have expressed concern over the development of specified hazardous waste facilities in the County, the County shall take the following actions:

a. Complete a Memorandum of Understanding with the Bureau of Land Management (BLM) regarding review of specified hazardous waste applications for those projects proposed on land owned by the BLM.

b. Notify and request involvement of Native American Tribal Councils in the review of all specified hazardous waste facility applications in their region.

c. Prohibit specified hazardous waste facilities on private lands in the Death Valley and Joshua Tree National Monuments, Mitchell Caverns State Park, National Forest Lands administered by the U.S. Forest Service, the East Mojave National Scenic Area, and any Wilderness Area designated by the U.S. Department of Agriculture, or wilderness study area designated by BLM as suitable for a Wilderness Area pursuant to the Federal Land Management Policy Act of 1976. When Congress acts on Wilderness Areas this policy shall be amended to be consistent with those Wilderness Areas. (P/A-5-7)

HW-9 Because state law authorized a tax (not exceeding 10% of gross receipts) on an approved specified hazardous waste facility, and these facilities have a potential to impact the environment, public health, and public services, this jurisdiction shall set aside a portion of the revenue for programs that encourage safe and responsible management of hazardous waste. (P/A-5-8)

HW-10 Because the siting criteria and the policies of this plan should be applied uniformly throughout the County in order to ensure effective management of hazardous waste and that facilities are sited only in environmentally sound locations, the County shall encourage all the cities within the County to adopt the CHWMP and the siting criteria and development policies. (P/A-5-9)

HW-11 Because specified hazardous waste facility proposals could impact proposed city or County redevelopment projects, this jurisdiction shall inform the applicable redevelopment agency of all specified hazardous waste facility applications. (P/A-5-10)

HW-12 Because the CHWMP sets forth comprehensive criteria for siting needed specified hazardous waste facilities, the siting criteria should be used to determine the suitability of projects in all County, city, state, and federal lands. (P/A-5-11)

HW-13 Because the Department of Defense (DOD) contributes significantly to hazardous waste production in the County as a result of site remediation efforts, DOD operations, and businesses producing products for DOD, this plan encourages the following:

a. That the DOD implement waste reduction efforts to the maximum extent possible.

b. That the DOD obtain appropriate permits from local jurisdictions and allow periodic inspection of facilities for compliance with environmental regulations.

c. That the DOD consider undertaking land exchange or lease agreements with industry desiring to site specified hazardous waste facilities in DOD property.

d. That the DOD undertake hazardous waste management efforts which are consistent with the goals and policies/actions of this Plan. (P/A-5-12)

HW-14 Because cement kilns can use certain hazardous wastes as a secondary fuel and the use of such fuel significantly reduces large amounts of waste and may result in improved air emissions, this jurisdiction shall encourage facilities in San Bernardino County with cement kilns to use certain hazardous wastes as alternative sources of energy, only where improvements in air emissions can be achieved. (P/A-5-13)

HW-15 Because Section 65300 of the California Government Code places a dual mandate on how cities and counties must consider development within a sphere of influence, the County shall ensure that all applications for specified hazardous waste facilities are reviewed for consistency with the goals and policies of the 1989 County General Plan regarding development in a sphere of influence (LU-8 and LU-9). (P/A-5-14)

HW-16 Because San Bernardino County obtains about 85% of its drinking water from groundwater and a significant percentage of the population of Southern California also depends on San Bernardino County groundwater for its beneficial uses, and because inappropriately sited development (including specified hazardous waste facilities) have the potential to adversely impact groundwater, this jurisdiction shall develop a Countywide groundwater protection strategy. The strategy should consider specific policies and programs for regulation of potential sources of pollution as well as identify mechanisms to detect and correct possible impacts to the groundwater. (P/A-5-15)

HW-17 Because above ground storage of hazardous materials may pose a threat to public health and safety and the environment and County ordinances do not include standards for above ground storage, and because all hazardous material handlers may not be easily identified, the County shall do the following:

a. Revise Division 3 of the Uniform Environmental Health Code to establish above ground storage standards for hazardous materials. The ordinance shall include, but not be limited to, the following requirements:
   - secondary containment of substances;
   - segregation of incompatible materials;
   - storage of hazardous substances restricted to an area with a surface impervious to the substance;
   - methods to prevent run-off of rain water and/or collection of rain water if area is not covered;
   - fencing and/or other security of the area with adequate signs present to inform of the presence of hazardous materials;
   - emergency equipment to be stored on-site as appropriate (e.g. proper absorbent to deal with a spill or an appropriate neutralizing agent); and
   - minimum storage distances from adjacent land uses.

b. Establish a system for identifying all handlers of hazardous substances with such measures as:
   - review of telephone directories and other business listings;
   - exchange of information with city code enforcement officers, local fire agencies, and city business license offices; and
   - field surveys as necessary.

c. Review periodically each place of business registered in the hazardous material handler program to verify the hazardous substance inventory on file and to advise the handler of safe storage practices. (P/A-6-2)

HW-18 Because certain home occupations use and store hazardous materials and the use and storage of hazardous materials in residential areas may pose a threat to the public, this jurisdiction shall continue to prohibit businesses under a Home Occupation Permit to store hazardous materials for commercial use in residential areas. Violations of this policy shall be subject to enforcement action by the local jurisdiction and/or fire authority.

In addition, the County shall coordinate with cities in developing a list of home occupations that use hazardous materials or generate hazardous waste within city jurisdictions. The list shall be distributed to city and county planning departments. (P/A-6-4)

HW-19 Because information regarding the amounts and types of hazardous materials used and hazardous waste generated are important factors to consider when siting new development or reviewing existing businesses, this jurisdiction shall:

a. Amend the Development Code (zoning ordinance) to:

   i) Require new businesses to submit detailed information regarding the amounts and types of hazardous materials used and hazardous wastes generated, the business procedures implemented to manage these hazardous substances, and the emergency procedures employed in the event of an accident. The applicant must demonstrate that the business operations are consistent with hazardous material/waste legislation.

   ii) Require new or modified businesses to complete a business plan, waste minimization plan, and, if applicable, a Risk Management and Prevention Program prior to final approval of a land use permit for a new business or modification of an existing business. The requirements specified in AB 3777 (Chapter 1260, Statutes of 1986) and AB 3205 (Chapter 15, Statutes of 1988) regarding the applicability of the RMPP shall be identified in the amendment. The Plans shall be submitted to the County DEHS for review and approval.

b. Expand outreach efforts to city and County planning agencies, city and County building and safety departments, and the real estate industry regarding new planning and reporting requirements as well as the identification of the types of businesses which may be affected by these requirements. Such a program should include the development of brochures and flyers describing the requirements and an identification of types of businesses which are likely to handle acutely hazardous materials. (P/A-8-1)

HW-20 Because certain quantities of acutely hazardous materials could pose a threat to the public health and safety and the environment, this jurisdiction shall amend the Development Code (zoning ordinance) to require a conditional use permit for all businesses or governmental facilities handling acutely hazardous materials in excess of 55 gallons, 500 pounds, or 200 cubic feet. (P/A-8-2)

HW-21 Because inappropriately sited industrial facilities pose a threat to the public, and because zoning ordinances do not identify quantity or use limitations for hazardous material/waste, and identifying restrictions could address future concerns with the siting of industrial facilities handling hazardous material/waste, this jurisdiction shall evaluate the feasibility of establishing siting criteria that identify the types and amounts of materials allowed within particular zoning designations. The study shall identify a list of chemicals and appropriate thresholds which would cause a business to be subject to specific land use restrictions, recommend changes in the Development Code (zoning ordinance) for review of such industries, and identify the advantages and disadvantages of implementing such an ordinance.(P/A-8-3)

HW-22 Because safe transportation of hazardous waste is an important goal of existing state law and local jurisdictions, specified hazardous waste facilities shall use routes that can safely accommodate additional truck traffic, do not pass through residential areas, and use interstate or state divided highways as major routes. (P/A-10-1)

HW-23 Because specified hazardous waste facilities must have access to safe transportation routes, this jurisdiction shall require applicants for specified hazardous waste facilities to fund an analysis of transportation concerns (see policy action HW-5f.[iv]). The transportation study shall provide a description and analysis of the projected volumes of hazardous waste transported into and through the County. The transportation task force identified in policy/action P/A-10-2 in the County HWMP shall participate with local government staff in developing the scope of the study. The study shall include, but not be limited to:

- An identification of all reasonably available highway and railway routes in the Southern California region and the development and comparison of the risk associated with the alternate routes.
- A comparison of the risk associated with transporting hazardous waste in different truck and rail cargo tanks.
- An identification of route-specific, risk-reducing measures for each route examined.
- An identification and evaluation of procedural (i.e., training, routing, curfews), technological (i.e., equipment innovation), and external risk-reducing measures (i.e., road improvements, emergency response improvements) to transport hazardous waste by truck and by rail. (P/A-10-3)

HW-24 Because planning for safe transportation of hazardous waste is a regional concern, this jurisdiction shall work with regional transportation planners in ensuring that local issues are addressed in regional transportation plans. (P/A-10-4)

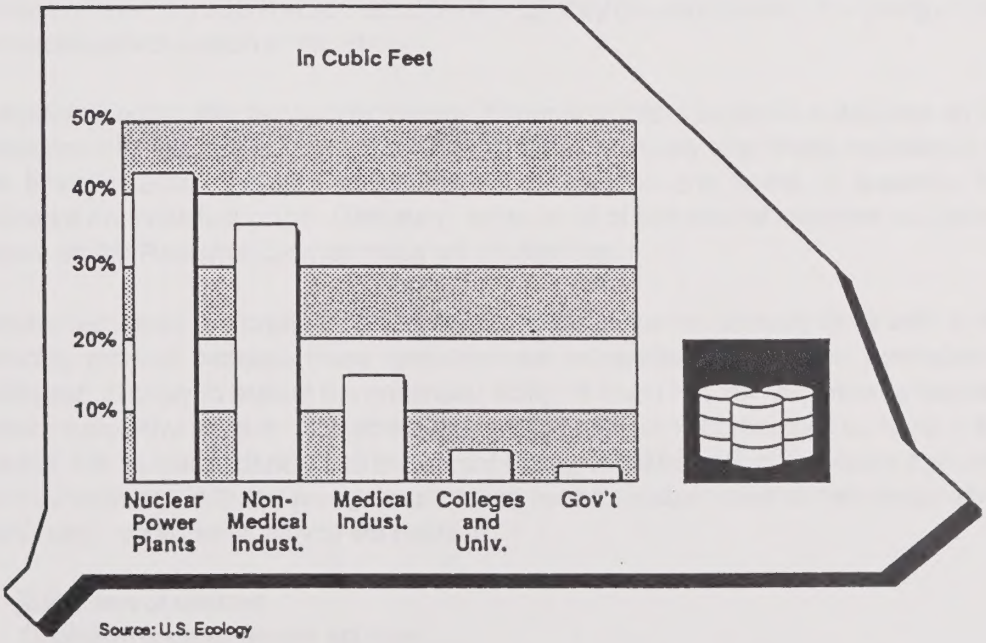
HW-25 Because state law does not specify local actions or procedures for projects proposed at a location listed by the Office of Planning and Research (OPR) as a contaminated site, and impacts may result to the public health and safety, and because development on contaminated sites may preclude future environmental remediation, this jurisdiction shall amend the Development Code to implement the following as a part of the development review and permit issuance process:

a. require a preapplication meeting for all development/land use applications at locations listed by OPR or DEHS.

b. require all development/land use applications at locations listed by OPR or DEHS to be subject to discretionary conditional use review by this jurisdiction, except when deemed not necessary by this jurisdiction. Exemption from discretionary review shall be based on the scope of the project and the nature of the contamination. (P/A-12-6)

HW-26 Because it is essential to assure compatibility with adjacent land uses as well as protection of the public and environment, the County shall continue its constant and active participation in the environmental review and public hearing processes under Phase 3 of the siting of the Low Level Radioactive Waste Disposal facility.

Low-level radioactive waste generated in California in 1986



C. NATURAL RESOURCES

Most but not all natural resources are plentiful in San Bernardino County and are a necessity for the quality of life that is desirable for residents and visitors in the County. These resources generally are not hardy nor capable of withstanding the adverse effects of increasing urbanization. Understanding these resources requires an understanding of certain principles. These include the concepts of: carrying capacity, threshold levels of impact, renewable versus nonrenewable kinds of resources, ecological viability, and long-term versus short-term deleterious effects. Only after these concepts are understood can the desired goal of retention of these resources be addressed.

Natural resources found in the County fall into one of the seven following categories:

1. Biological
2. Cultural/Paleontologic
3. Air Quality
4. Water
5. Open Space/Recreation/Scenic
6. Soils/Agriculture
7. Minerals

(Solar and wind are also natural resources though they are addressed in the Energy/Telecommunications section of the Plan.)

Natural resources affected by policy/action statements in this section are depicted on the Resource Overlay maps. These maps are currently manually kept maps maintained by the Environmental Analysis Team. Information sources and levels of accuracy are indicated on individual maps. Ultimately, some or all of the natural resource categories shown on the Resource Overlay maps will be digitized.

Natural resources are distinctly different from other concerns normally dealt with in the planning process because these resources are exhaustible and can be permanently damaged. In order to ensure the continued ability of these natural resources to function in their supportive roles in maintaining the quality of life for the urbanized portions of the County, it is crucial to identify and implement strong definitive actions to assure their long term survivability. Without strong direction and controls placed upon certain lands within the County, undesirable effects will result in:

- Extinction of species
- Depletion of groundwater aquifers
- Consumption of nonrenewable resources
- Loss of interpretive data
- Conversions of natural open space
- Urbanization of fertile soils

Goals

C-1 *Natural Resources are a necessity to the quality of life within San Bernardino County and it is desirable to maintain them to the greatest extent possible.*

C-2 *Certain scarce natural resources are best managed for preservation. These include biological resources, cultural resources, air quality, groundwater supply and quality, and open space.*

C-3 *Other types of natural resources are best managed for conservation for future beneficial uses. These include mineral resources, soils (including prime agricultural lands), and energy resources.*

C-4 *Maintenance of the natural resource base of the County requires prudent stewardship in coordination with appropriate agencies and interested groups.*

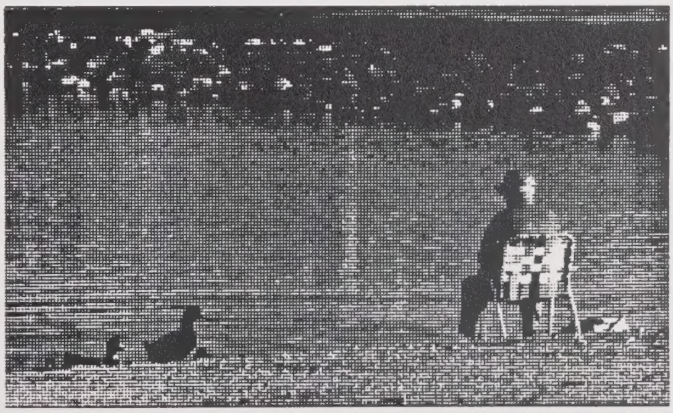
1. BIOLOGICAL

Biological resources are the living elements of man's environment. As such, they are necessary for the proper functioning of the environment in the short-term and for its long-term productivity. Biological resources are herein defined as native species of plants and animals (resident and migratory). Some species are endangered or threatened with extinction and require intensive management for their preservation, while others are relatively abundant and require only the application of general conservation practices for their continued existence.

The status of biological resources in the County is generally declining due to increased urbanization and encroachment into previously rural areas. Housing demand has spurred growth in all areas of the County affecting many species directly through habitat loss and indirectly through increased use of open space and recreational lands. Mining and recreational uses commonly occur on lands designated for conservation and may impact sensitive resources.

"Rare or endangered species" as used here are defined as in Section 15380 of the State CEQA Guidelines. This includes those species listed in Sections 670.2 or 670.5, Title 14, California Administrative Code; or Title 50, Code of Federal Regulations Sections 17.11 or 17.12 pursuant to the Federal Endangered Species Act; or if it can be shown that the species is "threatened" as that term is used in the Federal Endangered Species Act. Compilation of lists of species meeting these criteria are produced by the U. S. Fish and Wildlife Service, the California Department of Fish and Game, and the California Native Plant Society, as well as other groups. These lists are amended sporadically and project review must be conducted with regard to the current status listing. Other more commonly occurring species of plants and animals are also protected under various provisions of the State Food and Agriculture Code and the Fish and Game Code. In addition, the County has extended review of land clearing activities with the adoption of the Plant Protection and Management Ordinance (County Code Title 8, Division 11).

Many rare, endangered and protected species occur within the County. These species are listed for protection by various Federal, State and local agencies for maintenance of long-term productivity of the environment and protection of the ecosystem. In addition, several specialized habitat areas exist throughout the County. These areas provide habitat for species that may become endangered through habitat loss, or species that have limited occurrence naturally.



Man relaxes near the water at Yucaipa Regional Park; Yucaipa

Several areas of concern involve threatened or potentially threatened species. In the Valley region, several species, including the Santa Ana River Woolly Star and slender-horned spineflower, occur in areas that are often sought after for aggregate extraction. In the Mountain region, many plant and animal species, including Bald and Golden Eagles, are losing habitat to residential land use along lake shores. In the Desert region, species like the Desert Tortoise, Mohave

Ground Squirrel and Joshua Tree are losing habitat to residential land uses and critical habitats are being considered for regional facilities such as hazardous waste repositories.

Special habitat areas include: oak woodlands in the Yucaipa and Chino Hills, riparian woodlands throughout the Valley, and alluvial fan scrub. In the Big Bear Valley and Baldwin Lake areas, lakeshore, riparian, wet meadow, pebble plains and limestone outcroppings are threatened, while in the Desert region, perennial water sources, springs and streams can be threatened through overdraft or diversion of recharge.

Other special habitat areas are identified under various programs by several agencies. Examples include Areas of Special Biological Importance (Cal. Fish and Game), Areas of Critical Environmental Concern (BLM), Wilderness Areas and Wilderness Study Areas (USFS & BLM), and areas of Critical Habitat (USFWS).

In addition to these areas, the County has identified the following for preservation: Alkali Wet Meadow, Pebble Plains, and Limestone substrate in the Big Bear Valley and Baldwin Lake area; Walnut Woodlands in the Tonner Canyon area of the Chino Hills and in the West Valley Foothills; Oak Woodlands; Joshua Tree woodland in the desert region; and riparian areas and perennial springs Countywide.

The following is a list of rare, endangered, and threatened species that occur in San Bernardino County. Land use map changes and discretionary land use approvals that may adversely affect these species require a mandatory finding of significant effect pursuant to State CEQA Guidelines, section 15065 and an Environmental Impact Report must be prepared for consideration during application review.

Common Name	Scientific Name	Status	Habitat in County
Fish			
Mohave Tui Chub	Gila bicolor ssp mohavensis	SE, FE	Perennial Water in Desert
Unarmored Threespine Stickleback	Gasterosteus aculeatus ssp williamsoni	SE, FE	Baldwin Lake and its tributaries
Colorado Squawfish	Ptychorheilus lucius	FE	Colorado River
Razorback Sucker	Xyrauchen texanus	SE	Colorado River
Reptiles			
Southern Rubber Boa	Charina bottae ssp umbratica	ST	Yellow Pine

Common Name	Scientific Name	Status	Habitat In County
Birds			
Southern Bald Eagle	Haliaeetus leucocephalus ssp leucocephalus	SE, FE	Lakes
California Black Rail	Laterallus jamaicensis ssp coturniculus	ST	Marshes
Yuma Clapper Rail	Rallus longirostris ssp yumanensis	ST, FE	Marshes Riparian Woodland
Western Yellow-billed Cuckoo	Coccyzus americanus ssp occidentalis	SE	Riparian Woodland
Least Bell's Vireo	Vireo bellii ssp pusillus	SE, FE	Riparian woodland
Elf Owl	Micrathene whitneyi	SE	Riparian Woodland Desert Oases
Swainson's Hawk	Buteo swainsoni	ST	Joshua Tree Woodland
Mammals			
Mohave Ground Squirrel	Spermophilus mohavensis	ST	Sandy areas desert
Stephens' Kangaroo Rat	Dipodomys stephensi	ST, FE	Coastal Sage
Plants			
Threadleaf Brodiaea	Brodiaea filifolia	SE	Chaparral
Slender-horned Spineflower	Centrostegia leptoceras	SE, FE	Alluvial Sage, Scrub
Santa Ana River Woolly-Star	Eriastrum densifolium ssp sanctorum	SE, FE	Alluvial Sage, Scrub
Thorne's Buckwheat	Eriogonum ericifolium var thornei	SE	Pinyon-Juniper Woodland
Mojave Tarplant (presumed extinct)	Hemizonia mohavensis	SE	Desert Washes
Nevin's Barberry	Mahonia nevinii	SE	San Timoteo Canyon
Parish's Checkerbloom	Sidalcea hickmanii ssp parishii	SR	Pebble Plains Bear Valley
Pedate Checkerbloom	Sidalcea pedata	SE, FE	Alkaline meadows, seeps, Bear Valley
Slender-Petaled Thelypodium	Thelypodium stenopetalum	SE, FE	Wet Meadows

SE - State Endangered SR - State Rare St - State Threatened FE - Federal Endangered

In addition to those species previously listed, there are many species for which a finding of significant effect may be made. This determination shall be made during project review pursuant to CEQA. The Office of Planning shall maintain current copies of the Element List from the Natural Diversity Data Base (Calif. Fish and Game), and the Inventory of Rare and Endangered Vascular Plants of California, (California Native Plant Society), and the list of Candidate and Listed species (USFWS), and sensitive species (USFS), for the purpose of determining potential impacts to listed species. The information regarding geographic distribution of these species shall be automated and presented on the General Plan Resource Maps. (Until this information is automated, manually maintained maps shall be kept on file.)

GOALS

C-5 Prepare and maintain biotic resource overlays for use by County staff and general public for land management and planning.

C-6 Preserve rare and endangered species and protect areas of special habitat value.

C-7 Conserve populations and habitats of commonly occurring species.

C-8 Establish plans for long term preservation and conservation of biological resources.

C-9 Establish mitigation monitoring programs.

POLICIES/ACTIONS

BI-1 Because all rare, endangered, threatened, and candidate species' habitats require management for preservation, the following shall be implemented:

a. The Biotic Resource Overlay shall be applied to areas which have been identified by a County, State or Federal agency as habitat for species of rare, threatened, endangered, or candidate, plants and animals. The Overlay shall be amended at least annually to include new areas of habitat and to delete areas found not to be habitat.

b. All proposed Land Use Map changes and discretionary land use proposals for areas within the Biotic Resource Overlay, or Open Space Mapping on the Resources Overlay shall be accompanied by a report that identifies all biotic resources located on the site and those on adjacent parcels, which could be adversely affected by the proposal. The report shall outline mitigation measures designed to eliminate or reduce impacts to identified resources. The report shall be prepared by an appropriate expert such as a qualified biologist, botanist, herpetologist or other professional "life scientist." The mitigation plan shall be prepared following guidielines outlined on pages VIII-126 and VIII-127, with reference to regional guidelines contained on pages VIII-128 and VIII-129, in the Final Environmental Impact Report for the General Plan.

c. The conditions of approval of any land use application shall incorporate the identified mitigation measures to protect and preserve the habitats of the identified species.

d. The following management policies will be applied to all proposed Land Use Map changes and discretionary land use proposals within Biotic Resource Overlay areas as recommended in the required Biological Resource Report:

i. Provide for mitigation measures that would reduce impacts to populations where feasible.

ii. Provide for mitigation measures that would reduce impacts to habitat areas due to encroachment of incompatible land uses or fragmentation of habitat areas, where feasible.

iii. Provide for mitigation measures that enhance populations where feasible.

iv. Provide for mitigation measures that enhance habitat areas, such as buffer areas, where feasible.

BI-2 Because listed and candidate species and their habitats exist throughout the County and may occur in areas not included in the Biotic Resource Overlay, all of the provisions of policy BI-1 may be applied elsewhere in the County.

BI-3 Because species occurrences may be adversely affected by land use approvals, provisions of Policy BI-1 may be applied in areas supporting these species if it can be shown that the species is "threatened" as that term is used in the Federal Endangered Species Act.

BI-4 Because the quality of life is related to the variety and abundance of all species, commonly occurring species shall be conserved. The following policies shall be incorporated into the conditions of approval for all proposed discretionary land use proposals:

a. Regulate land clearing to reduce soil loss due to erosion pursuant to the Plant Protection and Management Ordinance and erosion control regulations.

b. Minimize grading and cut and fill operations to reduce soil and vegetation loss.

c. Limit operation of Off-Highway Vehicles to approved areas and times of operation to minimize soil and vegetation loss.

d. Restrict encroachment of incompatible land uses on natural areas, including drainage courses and open space areas shown on the Resources Overlay.

e. Encourage infilling of vacant land where urban levels of service are available.

f. Implement an abatement program to mitigate tree mortality.

BI-5 Because preservation and conservation of biological resources are statewide, regional, and local issues that directly affect development rights, there is an immediate need to establish long term comprehensive plans for native species. The following plans and programs shall be established and implemented:

- Habitat Conservation Plans (also referred to as Mitigation Programs; such programs or plans shall be prepared according to guideleines outlined on pages VIII-125 and VIII-126 of the Final Environmental Impact Report for the General Plan.)
- Land ownership transfer program
- Land conservation easement program

BI-6 Because preservation and conservation of biological resources depends upon mitigation measures adopted as conditions of approval, monitoring programs shall be established as follows:

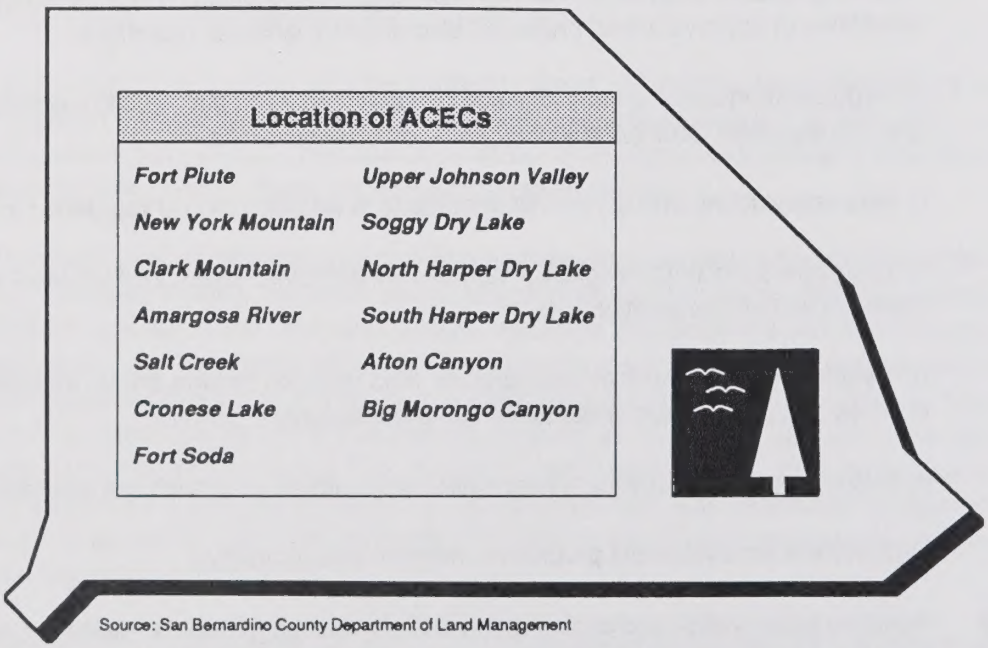
a. All discretionary approvals requiring mitigation measures for impacts to biological resources shall include the condition that the mitigation measures be monitored and modified, if necessary, unless a finding is made that such monitoring is not feasible.

b. The monitoring program shall be designed specifically for the potential impacts identified in the Biological Resource Report persuant to guidelines outlined on page VIII-127 of the Final Environmental Impact Report for the General Plan.

c. The monitoring program shall be designed to determine if the mitigation measures were implemented and if they were effective.

d. The monitoring program shall be funded by the project applicant to ensure compliance with and effectiveness of conditions of approval.

The 13 biological Areas of Critical Environmental Concern as designated by the Bureau of Land Management



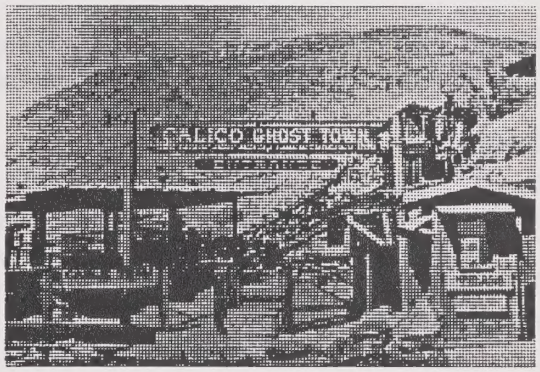
Source: San Bernardino County Department of Land Management

2. Cultural/Paleontologic

Cultural Resources

The term "cultural resources" includes both archaeological and historic resources. Archaeological resources, in turn, may be either prehistoric or historic in origin. Archaeological and historic resources can occur together on the same site. Although cultural resources are in fact man-made, they occur on the landscape as a result of previous human activities and must be addressed in the planning process in a manner similar to natural resources. For that reason, cultural resource goals and policies are found in this section of the General Plan.

Archaeological resources are the physical remains of past human activities and can be either prehistoric or historic in origin. Such resources include artifacts, refuse, and features in both surface and subsurface contexts, are 100 years or more of age, and typically are not standing structures.



Now a regional park, Calico was home to California's richest silver strike in 1881; Yermo

- Prehistoric archaeological resources may include the remains of villages and campsites, food processing locations, lithic (stone) resource procurement and tool-making locations, and burial and cremation areas. They may also consist of trails, rock art and geoglyphs (ground figures), and isolated artifacts. Prehistoric archaeological resources are the result of cultural activities of the ancestors and predecessors of contemporary Native Americans and, in many cases, retain special traditional and sacred significance for those people.

- Historic archaeological resources include refuse deposits such as can and bottle dumps, filled-in privy pits and cisterns, melted adobe walls and foundations, collapsed structures and associated features, and roads and trails. They may relate to mission activities, travel and exploration, early settlement, homestead activities, cattle and sheep herding, lumbering, and mining, among other themes. In San Bernardino County, historic archaeological resources date from the earliest Spanish mission activities (ca. 1770) to the turn of the century.

Historic resources are intact structures of any type that are 50 years or more of age. These resources are sometimes called the "built environment" and include houses or other structures, irrigation works, and engineering features, among other items.

Known cultural resources are those which have been identified through formal recognition on one or more of the following inventories: National Register of Historic Places, California Archaeological Inventory, California Historic Resources Inventory, California Historical Landmarks, and Points of Historic Interest.

Important archaeological or historic cultural resources that are subject to consideration in this section are defined by criteria outlined in the California Environmental Quality Act Guidelines (Appendix K) or in the Code of Federal Regulations for eligibility for listing in the National Register of Historic Places. Only those resources determined to be important or eligible for listing are considered subject to potential significant impacts during environmental review.

Qualified professionals conduct field surveys, evaluations of importance, mitigation plans, and data recovery and are recognized as experts in their disciplines. Depending on the cultural resource involved, qualified professionals may be archaeologists specializing in prehistoric or historic archaeology, or historians specializing in architectural history, oral history, or history of technology. They normally possess advanced degrees in their fields, have substantial experience in the geographic area involved, and are recognized by their respective disciplines as qualified for the studies undertaken.

Native American Concerns

Some historic archaeological sites, and all prehistoric archaeological sites, are the result of cultural activities of American Indian groups and their predecessors.

Goals

C-10 *Identify and protect important archaeological and historic cultural resources.*

C-11 *When such resources cannot feasibly be preserved in place, preserve the information they contain through implementation of appropriate data recovery programs.*

C-12 *Ensure that management objectives for cultural resources avoid or minimize potential conflicts with traditional Native American beliefs and concerns.*

Of the nearly 5,000 recorded archaeological sites and several hundred historic sites and structures located in San Bernardino County, a large proportion occur on private lands under the jurisdiction of the County. An equal or greater number of cultural resources are believed to be present but yet unidentified. The identification of cultural resources and determination of their importance is best done on a regional scale, early in the planning process. When that is not feasible, it must be done on a project level, and measures taken to ensure that important sites are preserved, or that the information they contain is recovered prior to their disturbance by development activities.

Short of conducting detailed field inventories for all areas under jurisdiction of the County, the most predictable, consistent, and economic means of ensuring that important cultural resources are not inadvertently destroyed by development is to map areas of known or expected sensitivity during the preparation of regional plans. Such sensitivity maps, termed Cultural Resource Overlays, not only identify specific areas in need of further study at the project level, they also identify those areas determined not to need any further consideration with respect to cultural resources. These maps are prepared based on recorded data on file at the Archaeological Information Center at the San Bernardino County Museum. Currently, six Planning Areas in the County have had Cultural Resource

Overlays prepared. These are: Bear Valley Communities Plan, Chino Hills Specific Plan, East Valley Corridor Specific Plan, Phelan Community Plan, Twentynine Palms Community Plan, and West Valley Foothills Community Plan. The fourteen other Planning Areas shown on the Land Use map have not had Cultural Resource Overlays prepared.

Policies/Actions

CP-1 Because portions of some Planning Areas of the County have been determined to have known cultural resource sensitivity and have been mapped on the Natural Resource Overlay Maps, the following measures are required for projects located within the mapped Cultural Resource Overlay areas:

a. A cultural resources field survey and evaluation prepared by a qualified professional shall be required with project submittal. The format of the report and standards for evaluation shall follow the 'Guidelines for Cultural Resouce Management Reports submitted to the San Bernardino County Office of Planning.'

b. Mitigation of impacts to important cultural resources shall follow the standards established in Appendix K of the California Environmental Quality Act Guidelines, as amended to date.

CP-2 Because it is desirable for as much of the County as possible to be covered by mapped cultural resource overlays to aid both planners and the public in anticipating when field surveys and evaluation studies will be necessary:

a. Cultural resource overlays will be prepared for all existing Planning Areas not currently having such maps.

b. Cultural resource overlays will be prepared as part of all future plans for individual Planning Areas.

CP-3 Because archaeological and historic resources occur in all environmental and topographic contexts, including many areas not mapped in the Cultural Resource Overlay on the Resource Overlay Maps, all land-use applications in Planning Areas lacking Cultural Resource Overlays and in lands outside of Planning Areas that involve disturbance of previously undisturbed ground, shall be subject to review of potential impacts to cultural resources as follows:

a. A preliminary cultural resource review shall be conducted by the Archaeological Information Center at the San Bernardino County Museum prior to application acceptance.

b. Should the preliminary review indicate the presence of known cultural resources or moderate to high sensitivity for the potential presence of cultural resources, a field survey and evaluation prepared by a qualified professional shall be required with project submittal. The format of the report and standards for evaluation shall follow the 'Guidelines for Cultural Resouce Management Reports submitted to the San Bernardino County Office of Planning.'

c. Mitigation measures for impacts to important cultural resources shall follow the standards established in Appendix K of the California Environmental Quality Act Guidelines, as amended to date.

CP-4 Because the underlying purpose of both avoidance/ preservation in place and data recovery as forms of mitigation of impacts to cultural resources is preservation of information and heritage values such resources contain, standards for reporting, curation, and site avoidance are as follows:

a. Site record forms and reports of surveys, test excavations, and data recovery programs shall be filed with the Archaeological Information Center at the San Bernardino County Museum, and shall be reviewed and approved in consultation with that office.

   i) Preliminary reports verifying that all necessary archaeological or historical fieldwork has been completed shall be required prior to project grading and/or building permits.
   ii) Final reports shall be submitted and approved prior to project occupancy permits.

b. Any artifacts collected or recovered as a result of cultural resource investigations shall be catalogued per County Museum guidelines and adequately curated in an institution with appropriate staff and facilities for their scientific information potential to be preserved.

c. When avoidance or preservation of an archaeological site or historic structure is proposed as a form of mitigation, a program detailing how such long-term avoidance or preservation is assured shall be developed and approved prior to conditional approval.

CP-5 Because contemporary Native Americans have expressed concern over the handling of the remains of their ancestors, particularly with respect to archaeological sites containing human burials or cremations, artifacts of ceremonial or spiritual significance, and rock art, the following actions shall be taken when decisions are made regarding the disposition of archaeological sites that are the result of prehistoric or historic Native American cultural activity:

a. The Native American Heritage Commission and local reservation, museum, and other concerned Native American leaders shall be notified in writing of any proposed evaluation or mitigation activities that involve excavation of Native American archaeological sites, and their comments and concerns solicited.

b. The concerns of the Native American community shall be fully considered in the planning process.

Paleontologic Resources

Paleontologic resources are the fossil remains or traces of past life forms, including both vertebrate and invertebrate species, as well as plants. These resources are found in geologic strata conducive to their preservation, typically sedimentary formations.

All vertebrate fossils are considered to be significant; other kinds of paleontologic resources must be evaluated individually for significance depending on their potential scientific value.

Qualified professionals conduct field surveys, mitigation plans, and monitoring of construction grading. Qualified professionals are trained in vertebrate paleontology, geology, stratigraphy, and related subjects, and normally possess advanced degrees in their fields, have substantial experience in the geographic area involved, and are recognized by their respective disciplines as qualified for the studies undertaken.

Areas of known and potential paleontologic sensitivity have been mapped county-wide at a scale of 1:250,000 by the County Museum Curator of Earth Sciences. The map is updated annually. The map depicts areas of known fossil occurrences documented by field observation and records in the Museum files (the Regional Paleontologic Locality Index [RPLI]), and areas of potential paleontologic sensitivity, based on the presence of sedimentary geologic strata conducive to fossil preservation. This source of information shall be used for review of individual project proposals to determine the level of effort necessary to evaluate potential project effects on paleontologic resources.

Goals

C-13 *Ensure that significant paleontologic resources exposed during grading for development are recovered and preserved for their scientific value.*

Policies/Actions

CP-6 Because development activities that involve substantial grading in areas of known or potential paleontologic sensitivity have the potential to destroy significant fossil resources, such projects mapped on the Paleontologic Overlay shall be subject to the following standards:

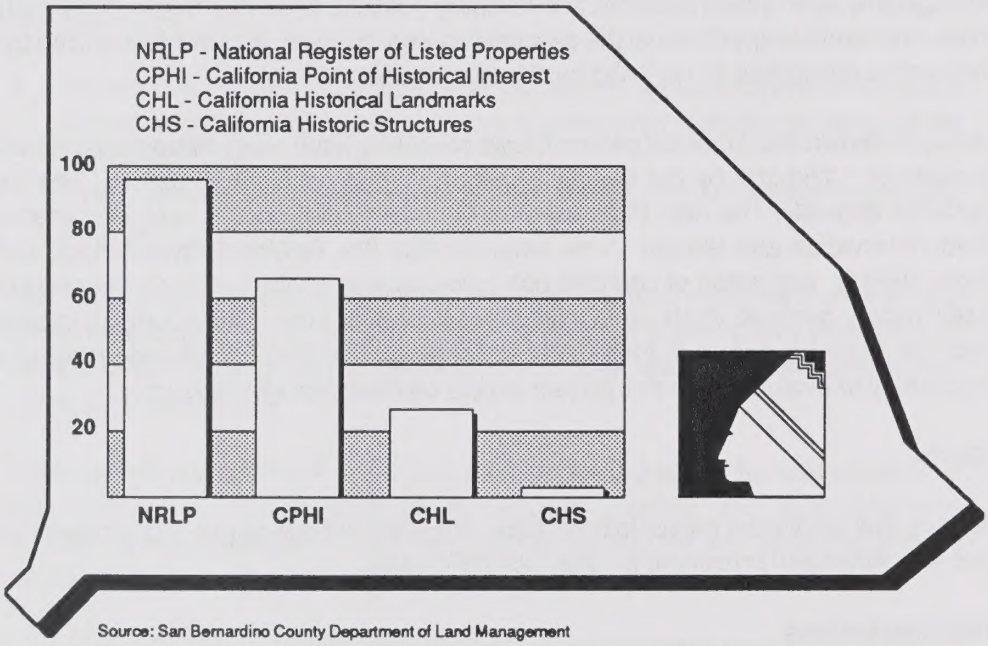
a. In areas of potential but unknown sensitivity, field surveys prior to grading shall be required to establish the need for paleontologic monitoring.

b. Projects requiring grading plans that are located in areas of known fossil occurrences on the overlay, or demonstrated in a field survey to have fossils present, shall have all rough grading (cuts greater than three feet) monitored by trained paleontologic crews working under the direction of a qualified professional, in order that fossils exposed during grading can be recovered and preserved. Fossils include large and small vertebrate fossils, the latter recovered by screen washing of bulk samples.

c. All recovered specimens shall be prepared to the point of identification and adequately curated into retrievable collections of an institution with appropriate staff and facilities for their scientific information potential to be preserved.

d. A report of findings with an itemized accession inventory shall be prepared as evidence that monitoring has been successfully completed. A preliminary report shall be submitted and approved prior to granting of building permits, and a final report shall be submitted and approved prior to granting of occupancy permits. The adequacy of paleontologic reports shall be determined in consultation with the Curator of Earth Science, San Bernardino County Museum.

Number of listed historic sites in the County as of 1989



Source: San Bernardino County Department of Land Management

3. AIR QUALITY

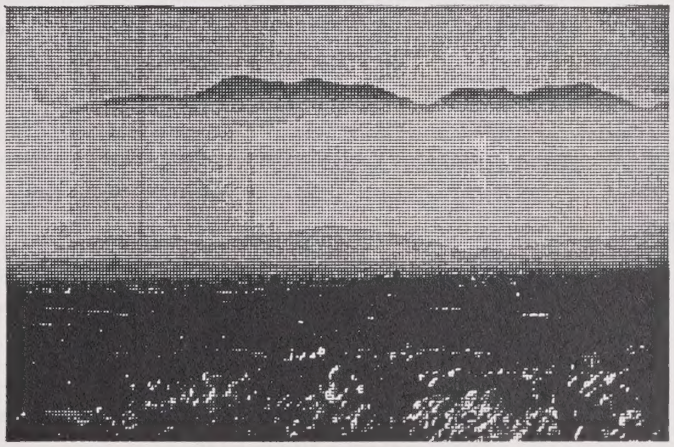
The air quality in San Bernardino County results from a unique combination of factors; air flow patterns and emission sources, both local and those located through the region, result in some of the worst air quality in the nation. San Bernardino County regularly exceeds State and Federal air quality standards for Ozone (O3) and Particulate Matter (PM^{10}). Exceedances are acute during summer months when onshore wind patterns transport pollutants from the western portion of the South Coast Air Basin, notably Los Angeles and Orange Counties which combine with local sources. San Bernardino County records the most severe violations of air quality standards for Ozone and PM^{10} in the summer months relative to the rest of the air basin.

The Clean Air Act, promulgated in 1970 and amended twice thereafter (including the recent 1990 amendment), establishes the framework for modern air pollution control. The Act directs the Environmental Protection Agency **(EPA)** to establish ambient air standards for six pollutants: Ozone, Carbon Monoxide, Lead, Nitrogen Dioxide, Particulate Matter and Sulphur Dioxide. The standards (NAAQS) are divided into primary and secondary standards; the former are set to protect human health within an adequate margin of safety and the latter to protect environmental values such as plant and animal life.

According to the Act, states are required to submit State Implementation Plans **(SIP)** for areas that exceed the NAAQS, or nonattainment areas. The SIP, which is reviewed and approved by the EPA, must demonstrate how the federal standards will be achieved. Failure to submit a plan or secure approval could lead to denial of federal funding and permits for such improvements as highway construction and sewage treatment plants. In cases where the SIP is submitted but fails to demonstrate achievement of the standards, the EPA is directed to prepare a Federal Implementation Plan.

In addition to the six pollutants regulated by Federal legislation, the California Clean Air Act establishes standards for Hydrogen Sulphide, Sulphates and Vinyl Chloride. Responsibility for achieving these standards (which are more stringent than Federal standards) is placed on the California Air Resources Board and local air pollution control districts. District plans for nonattainment areas must be designed to achieve a 5% annual reduction in total District emissions. The Air Quality Management Plan **(AQMP)** is, in turn, incorporated into the SIP.

With the aim of complying with all Federal standards by 2007, the South Coast Air Quality Management District **(SCAQMD)** and Southern California Association of Governments (SCAG) jointly prepared the 1989 Air Quality Management Plan (AQMP). The Plan calls for implementation of rules and regulations by the Air Resources Board, the South Coast Air Quality Management District, the Environmental Protection Agency and local jurisdictions.



Layer of smog blankets the East Valley Highland

The AQMP calls upon local governments to take responsibility for 8% of the total required reduction regionwide in emissions from reactive organic gases and oxides of nitrogen. Specifically, local governments are asked to implement appropriate control measures contained in the AQMP to achieve this reduction. Several measures direct local government to adopt an Air Quality Element or its equivalent into its General Plan. If all of the applicable control measures are not implemented, the air quality standards cannot be achieved. In this event, the existing moratorium on location of stationary sources in the basin will be continued and Federal funding and other permits may be denied until the standards are met.

In an effort to comply with Federal and State regulations, and to improve air quality in the County and region, this Air Quality Element has been adopted. The guiding principles behind this adoption are as follows:

a. Air Quality and Economic Growth

- Achieve air quality improvements in such a way that continued economic growth can be sustained.

b. Market Incentives and Regulations

- Achieve necessary air quality related life style and economic changes through market incentives where feasible and through regulatory measures where necessary.

GOVERNMENT ORGANIZATION, ROLES & RESPONSIBILITIES

GOALS

Because the air quality problem is larger than any one jurisdiction, this Air Quality Element includes goals, policies and programs which have been accepted by the fifteen cities in the San Bernardino County portion of the South Coast Air Basin. These consensus goals, policies and programs provide a common foundation for coordinated action.

C-14 Effective coordination of air quality improvement within the portion of the South Coast Air Basin in San Bernardino County and improved air quality through reductions in pollutants from Orange and Los Angeles counties.

POLICIES/ACTIONS

Establish Coordinated Approach

AQ-1 Because air quality can best be addressed in a cooperative manner by all affected jurisdictions, the County shall coordinate with other jurisdictions in San Bernardino County to establish parallel air quality elements and implementation programs as follows:

a. Adopt local air quality elements based on the San Bernardino County/Cities Regional Air Quality Plan.

b. Establish an ongoing air quality implementation and project referral process within the San Bernardino portion of the South Coast Air Basin, adapting it as necessary to local circumstances, resources and procedures.

Integrate With Related Programs

AQ-2 Because other mandated programs have similar and conflicting requirements, the County shall coordinate a process to integrate related functional programs' implementation, monitoring and reporting as follows:

a. Establish a coordination process for relating parallel actions undertaken as part of other regional or countywide plans.

b. Participate with SANBAG in defining and implementing a Congestion Management Program for San Bernardino County.[1]

c. Establish and maintain an implementation/monitoring system devised as part of the Air Quality Plan preparation. Integrate with monitoring and reporting systems required for purposes which overlap with the Air Quality Plan.

Affect Source Jurisdictions

AQ-3 Because air quality is a regional problem requiring regional solutions, the County shall cooperate actively with Los Angeles, Orange and Riverside counties to comprehensively improve air quality at the emission source as follows:

a. Jointly establish a communication network with key elected officials and staff involved in air quality planning in Los Angeles, Orange and Riverside counties as the basis for identifying and implementing parallel measures of mutual benefit.

Encourage Community Participation

AQ-4 Because alleviation of the air quality problem requires action on the part of all County residents, the County shall involve environmental groups, the business community, special interests and the general public in the formulation and implementation of programs which effectively reduce air borne pollutants as follows:

a. Design and conduct efforts to involve the public and affected/interested parties in the adoption of local air quality elements and implementation of air quality improvement programs such as:

- Conducting Public Forums.
- Establishing Communication and Education Programs.

1 Programs which further more than one air quality policy.

- Making written briefs available locally.
- Conducting Planning Commission/Board public workshops.
- Utilizing a variety of media to maximize citizen involvement.

Support Innovative Approaches

AQ-5 Because utilization of all available means of improving air quality will be necessary to meet attainment requirements, the County shall advocate and support innovative strategies to improve air quality such as:

a. Support new approaches to improving air quality through:

- Supporting legislation.
- Cooperating with regional bodies.
- Establishing pilot programs.
- Funding and/or participating in private/public partnerships.

b. Potential actions could include:

- Supporting legislation which would authorize imposition of consumer product Emission Fees, either at retail outlets or manufacturing points.
- Instituting Time of Day, Seasonal and Place Control Measures.
- Implementing an Auto Buy-Back Program.
- Creating an Emissions Reduction Trust to administer emission offsets.
- Investigating the feasibility of Highway Electrification and Automation.
- Supporting State enabling legislation to reassess distribution of property and sales tax revenues.

GROUND TRANSPORTATION

GOALS

C-15 A diverse and efficiently operated ground transportation system which generates the minimum feasible pollutants.

POLICIES/ACTIONS

Auto Use

Eliminate Vehicle Trips

AQ-6 Because elimination of vehicle trips(VT) is one of the most effective ways to reduce air borne emissions, the County shall use incentives, regulations and/or Transportation Demand Management(TDM) in cooperation with other jurisdictions in the South Coast Air Basin to eliminate vehicle trips which would otherwise be made in the following ways:

a. Establish and implement a Transportation Demand Management Program through such actions as:[1]

Requiring TMA (Transportation Management Association) establishment for large employers and commercial/ industrial complexes. Apply to new businesses at project approval or permit stage.

- Implementing employee rideshare and transit incentives in public agencies.
- Requiring employee rideshare and transit incentives for employers with more than 25 employees at a single location. Apply to existing businesses at license renewal time; to new businesses at project approval or permit stage.
- Participating in cooperative efforts to establish legislation affording incentives for purchase of Vanpools.
- Participating in the design and establishment of incentives which would eliminate vehicle trips.
- Implementing teleconferencing and telecommuting programs in public agencies.
- Requiring teleconferencing and telecommuting for private employers with more than 25 employees at a single location. Apply to existing businesses at license renewal time; to new businesses at project approval or permit stage.
- Participating with SANBAG to develop a private/public telecommunication center in San Bernardino County.

b. Define and implement auto limitation procedures in selected areas and at selected times, provided that alternative transportation modes are available by:[1]

- Establishing incentives, regulations and/or procedures to limit direct auto access:[1]
  - To special event centers.
  - In auto-free zones during peak periods.

c. Establish incentives and/or regulations to eliminate work trips including such actions as:[1]

- Implementing staggered, flexible and compressed work schedules in public agencies.[1]
- Requiring work schedule flexibility programs for employers with more than 25 employees at a single location. Apply to existing businesses at license renewal time; to new businesses at project approval or permit stage.

1 Programs which further more than one air quality policy.

Reduce Vehicle Miles Traveled

AQ-7 Because reduction of vehicle miles traveled(VMT) will reduce mobile source emissions, the County shall use incentives, regulations and/or Transportation Demand Management in cooperation with other jurisdictions in the South Coast Air Basin to reduce the vehicle miles traveled for auto trips which still need to be made as follows:

a. Establish and implement a Transportation Demand Management Program through such actions as:

- Requiring TMA establishment for large employers and commercial/ industrial complexes. Apply to new businesses at project approval or permit stage.
- Implementing employee rideshare and transit incentives in public agencies.
- Requiring employee rideshare and transit incentives for employers with more than 25 employees at a single location. Apply to existing businesses at license renewal time; to new businesses at project approval or permit stage.
- Participating in cooperative efforts to establish legislation affording incentives for purchase of Vanpools.
- Participating in the design and establishment of incentives which would eliminate vehicle trips.

b. Establish and maintain telecommunications strategies to reduce the length of auto trips through such actions as:[1]

- Implementing teleconferencing and telecommuting programs in public agencies.
- Requiring teleconferencing and telecommuting for private employers with more than 25 employees at a single location. Apply to existing businesses at license renewal time; to new businesses at project approval or permit stage.

c. Define and implement auto limitation procedures in selected areas and at selected times, provided that alternative transportation modes are available, by such actions as:

- Establishing regulations and/or procedures to limit direct auto access:
  - To special event centers.
  - In auto-free zones during peak periods.

1 Programs which further more than one air quality policy.

Congestion Management

Modify Work Schedules

AQ-8 Because increased traffic congestion results in increased emissions, the County shall promote and establish modified work schedules which reduce peak period auto travel as follows:

a. Establish incentives and/or regulations to spread work trips over a longer period to reduce peak period congestion, including such actions as:[1]

- Implementing staggered, flexible and compressed work schedules in public agencies.
- Requiring work schedule flexibility programs for employers with more than 25 employees at a single location. Apply to existing businesses at license renewal time; to new businesses at project approval or permit stage.

Establish High Occupancy Vehicle (HOV) Lanes

AQ-9 Because HOV lanes help to reduce traffic congestion, the County shall participate in efforts to achieve increased designation, construction, and operation of HOV lanes on freeways in Los Angeles, Orange, Riverside and San Bernardino counties as follows:

a. Jointly, through the County, SANBAG, and SCAG, participate with adjacent counties in expanding HOV lanes on the freeway system within those counties by:

- Initiating an HOV task force to work with CALTRANS in implementing HOV lanes within the urbanized and urbanizing portions of San Bernardino, Orange, Los Angeles and Riverside counties.

Integrate Congestion Management Program

AQ-10 Because many of the provisions of the Congestion Management Program are the same or complementary to air quality programs, the County shall coordinate overlapping components of the State mandated Congestion Management Program and the Air Quality Element as follows:

a. Participate with SANBAG in defining and implementing a Congestion Management Program for San Bernardino County to insure appropriate coordination with air quality planning.

1 Programs which further more than one air quality policy.

Establish Congestion Fees

AQ-11 Because congestion fees can discourage vehicle trips thereby reducing air emissions, the County may promote market based incentives and disincentives to relieve peak hour/peak direction congestion within highly congested travel corridors as follows:

a. Cooperatively initiate a pilot program to explore, jointly with Los Angeles, Orange and Riverside counties, methods and workability of Congestion Fees for peak hour/peak direction use to be levied within highly congested travel corridors, particularly those which generate emissions transported to San Bernardino County.

Expanded Transit Systems And Services

Expand Transit in the County

AQ-12 Because alternative forms of transit are required to encourage or allow the reduction of low occupant vehicle use, the County shall cooperate in efforts to expand bus, rail and other forms of transit in the portion of the South Coast Air Basin within San Bernardino as follows:

a. Participate with public transit providers serving San Bernardino County in a cooperative program to increase transit services with existing equipment and expand services through transit facility improvements.

b. Coordinate with public transit providers to increase funding for transit improvements to supplement other means of travel.[1]

c. Plan for intraregional commuter and main line rail service development including convenience facilities at rail stops through such means as:

- Intensifying planned land uses in the vicinity of transit stops.
- Consolidating parking facilities to support transit as well as adjacent uses.

d. Develop design standards that promote access to transit facilities.

Expand Transit in the Air Basin

AQ-13 Because reduction of interregional trips will reduce vehicle trips and thereby reduce mobile emissions, the County shall promote expansion of all forms of transit in the urbanized portions of San Bernardino, Orange, Los Angeles and Riverside Counties as follows:

1 Programs which further more than one air quality policy.

a. Influence the expansion of intraregional commuter and main line rail services, particularly those linking with destinations in San Bernardino County.

b. Support public transit providers in efforts to increase funding for transit improvements to supplement other means of travel.[1]

c. Jointly support efforts to establish a regionwide bus pass.

Nonmotorized Means of Transportation

Promote Nonmotorized Transportation

AQ-14 Because reduced emissions are promoted by the use of bicycles and pedestrian facilities as alternative forms of transportation, the County shall provide bicycle and pedestrian pathways to encourage nonmotorized trips as follows:

a. Develop standards and guidelines for support facilities to incorporate into development plans for increased bicycle and pedestrian routes to link appropriate activity centers to nearby residential development.

Parking Management

Manage Parking Supply

AQ-15 Because reduction of parking discourages low occupancy vehicle use, the County shall manage parking supply to discourage auto use, while ensuring that economic development goals will not be sacrificed.

a. Establish short and long-term parking management strategies at governmental and private facilities in ways that discourage single occupancy vehicle usage and reward high vehicle occupancy rates without placing the County at a competitive disadvantage by such means as:

- Reducing or redirecting parking supply.

- Creating Parking "Banks" of landscaping and other less intensive land uses which could be used for parking in the future or could be developed with a more intensive land use provided the tenant/owner effectively reduces the demand for parking (through Transportation Demand Management, Regulation XV programs, increased parking cost, etc.).

1 Programs which further more than one air quality policy.

Encourage Market Incentives/Disincentives

AQ-16 Because charging the market value for parking discourages vehicle usage, the County shall promote a regional approach to increasing parking costs in order to discourage low vehicle occupancy as follows:

a. Establish parking management strategies for governmental and private facilities in ways that discourage single occupancy vehicle usage and reward high vehicle occupancy rates without placing the County at an economic disadvantage in enticing jobs by such means as:

- Recapturing parking costs through: establish fees; single occupant surcharges; reduced employee subsidized parking; and increased parking enforcement.

Cleaner Fuels

Support Legislation

AQ-17 Because auto emissions from fossil fuels cause a significant proportion of the area's air quality degradation, the County shall promote State and Federal legislation which would improve vehicle/transportation technology and which would establish differential pricing mechanisms to assess the true cost of emissions as follows:

a. Support legislation to stimulate the development of practical clean fuel vehicles.

b. Support State legislation which would establish:

- Emission Fees on gasoline products and Differential Registration Fees on motor vehicles according to the emission levels that they are designed to produce.

- Include exploration of an option that imposes pollution fees on individual vehicles at time of mandated smog inspections, based on actual vehicle performance.

c. Support legislation which tightens the existing vehicle inspection program, both in terms of standards to be met and requirements for compliance.

Institute Clean Fuel Systems

AQ-18 Because government vehicles contribute to vehicle trips and vehicle miles travelled, the County shall invest in clean fuel systems on new local government fleet vehicles as follows:

a. Institute clean fuel systems on new local government fleet vehicles.

AIR TRANSPORTATION

GOALS

C-16 Minimum feasible emissions from air carrier airports.

POLICIES/ACTIONS

Promote Improved Technology

AQ-19 Because aircraft fuels result in a significant amount of air emissions, the County shall promote requiring the best available technology to reduce emissions in aircraft fleet as follows:

a. Adopt/urge establishment of the best available technology and operational measures for aircraft and ground service vehicles.

b. Support phasing out of Stage II aircraft and the earliest possible transition to Stage III aircraft for operation within the Air Basin.

Promote Centralized Ground Power

AQ-20 Because airports cause a significant portion of the Basin's air quality degradation, the County shall promote installation of centralized ground power systems at existing air carrier airports as follows:

a. Adopt/urge establishment of requirements for centralized ground power systems to be installed and used as soon as practicable at existing air carrier airports.

Promote Improved Ground Access

AQ-21 Because traffic congestion can be significant in proximity to airports, the County shall promote conditioning of air carrier airports upon inclusion of plans for improved ground access as follows:

a. Adopt/urge establishment of an ordinance requiring air carrier airport operators to obtain permits based on approved plans for trip reduction, facility design and access improvements.

LAND USE

GOALS

C-17 A pattern of land uses which can be efficiently served by a diversified transportation system and land development projects which directly and indirectly generate the minimum feasible air pollutants.

POLICIES/ACTIONS

Manage Growth

AQ-22 Because congestion resulting from increased growth is expected to result in a significant increase in the air quality degradation of the air basin, the County may manage growth by insuring the timely provision of infrastructure to serve new development as follows:

a. Incorporate phasing policies and requirements in the General Plan and development plans to achieve timely provision of infrastructure (particularly transportation facilities) to serve development through:

- Tying growth to Level of Service (LOS) standards.
- Using Urban Limit Lines or phasing areas to manage growth.

Balance Growth

AQ-23 Because a more even distribution between jobs and housing will result in fewer vehicle trips and vehicle miles traveled, the County shall manage growth in order to create a more efficient urban form as follows:

a. Manage growth through new development and redevelopment project reviews and actions through:

- Project review procedures, ensuring that individual projects have a positive or neutral impact on VT/VMT.
- Revising the General Plan Land Use Designations.
- Revising the Development Code.
- Imposing exactions or linkage fees on projects which negatively impact VT/VMT.
- Project review procedures, ensuring that site design allows for alternative modes of transportation (bus stops, bus turnouts, bikeways, pedestrian routes, etc.)
- Phasing growth to ensure that job expansion and housing production occur at a targeted pace.
- Indexing residential development in housing-rich areas to commercial/industrial construction or availability.
- Encouraging mixed use development.
- Providing density/intensity bonuses to projects which improve housing/jobs balance.
- Encouraging Planned Unit Development.
- Giving incentives for employer-provided housing.
- Providing subsidies to attract new businesses.
- Utilizing tax exempt bond financing to encourage job-creating businesses.
- Providing infrastructure improvements and/or land for industrial and commercial development.

b. Improve growth management at a subregional level in relation to major activity centers as new development occurs by:

- Allowing/encouraging intensified development around transit nodes and along transit corridors.
- Using urban limit lines or phasing areas to manage growth.

c. Continue support for and consider expansion of the Baldy View Public/Private Coalition (CLOUT) demonstration project to incorporate: incentive oriented tax credits; loan programs; small business development programs; and complementary land use policies, all aimed at improving the jobs/housing balance in the western San Bernardino/eastern Los Angeles Counties area.

d. Develop and adopt an agreement among the participating jurisdictions as to mutually acceptable approaches to improve and maintain jobs/housing balance.

Protect Sensitive Receptors

AQ-24 Because some land uses support populations that are especially sensitive to air contaminants (such as schools and hospitals), the County shall support a regional approach to regulating the location and design of land uses which are especially sensitive to air pollution as follows:

a. Participate with the SCAQMD in jointly formulating appropriate standards for regulating the location and protection of sensitive receptors (schools, day care facilities, hospitals and the like) from excessive and hazardous emissions.

Integrate Planning Process

AQ-25 Because the interrelationship of land use and transportation has a significant effect on air quality, the County shall integrate air quality planning with the land use and transportation process as follows:

a. Locate and design new development in a manner that will minimize direct and indirect emission of air contaminants through such means as:

- Promoting mixed use development to reduce the length and frequency of vehicle trips.
- Providing for increased intensity of development along existing and proposed transit corridors.
- Providing for the location of ancillary employee services (including but not limited to child care, restaurants, banking facilities, convenience markets) at major employment centers for the purpose of reducing midday vehicle trips.

PARTICULATE EMISSIONS

GOALS

C-18 The minimum practicable particulate emissions from the construction and operation of roads and buildings.

POLICIES/ACTIONS

Control Dust

AQ-26 Because particulate emissions exceed Federal and State standards in the air basin, the County shall reduce particulate emissions from roads, parking lots, construction sites and agricultural lands as follows:

a. Adopt incentives, regulations and/or procedures to manage paved roads so they produce the minimum practicable level of particulates.

b. Adopt incentives, regulations and/or procedures to minimize particulate emissions during road, parking lot and building construction.

c. Adopt incentives, regulations and/or procedures to control particulate emissions from unpaved roads, drives, vehicle maneuvering areas and parking lots.

d. Adopt incentives, regulations and/or procedures to limit dust from agricultural lands and operations (where applicable).

Reduce Emissions from Building Materials/Methods

AQ-27 Because particulate emissions are affected by the type of materials and methods utilized, the County shall reduce emissions from building materials and methods which generate excessive pollutants as follows:

a. Adopt incentives, regulations and/or procedures to prohibit the use of building materials and methods which generate excessive pollutants.

ENERGY CONSERVATION

GOALS

C-19 Reduced emissions through reduced energy consumption.

POLICIES/ACTIONS

Energy Conservation

AQ-28 Because energy sources produce significant amounts of air pollution, the County shall reduce energy consumption through conservation improvements and requirements as follows:

a. Implement plans and programs to phase in energy conservation improvements through the annual budget process.

b. Adopt incentives and/or regulations to enact energy conservation requirements for private development.

Limit Water Heater Emissions

AQ-29 Because heaters emit air pollutants, the County shall reduce water heating emissions resulting from swimming pool heaters and residential and commercial water heaters as follows:

a. Adopt incentives and/or regulations to reduce emissions from swimming pool heaters.

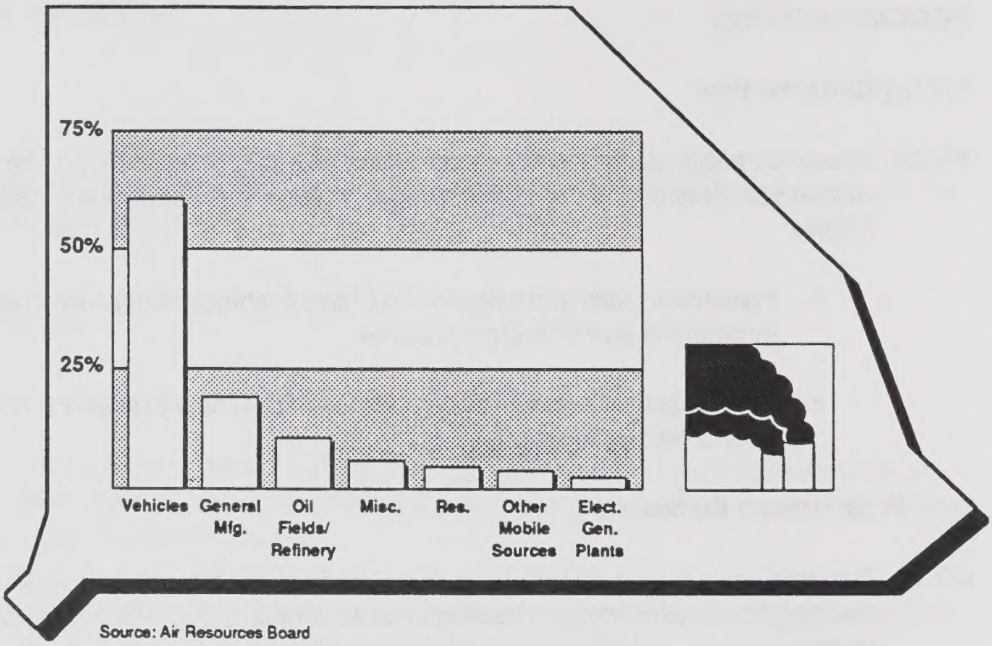
b. Adopt incentives and/or regulations to reduce emissions from residential and commercial water heating.

Recycle Wastes

AQ-30 Because recycling can reduce the pollutants emitted from the generation of new materials, the County shall promote local recycling of wastes and use of recycled materials as follows:

a. Implement provisions of AB 939 and adopt incentives, regulations and/or procedures to specify local recycling requirements.

Largest generators of air pollution in Southern California

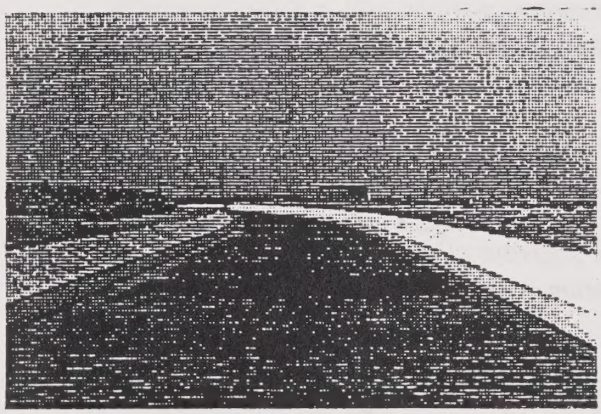


Source: Air Resources Board

4. WATER

The County of San Bernardino faces water supply and distribution issues in common with all other counties in the Southern California region. The urbanizing areas of the County are dependent upon adequate quantities and qualities of **potable** water being available. At present, the majority of the County is dependent upon locally available supplies of **groundwater**. However, imported water will play an increasing role in satisfying the demand for water throughout the County. The trends of **overdrafting** local groundwater cannot continue indefinitely, as **aquifers** become depleted to the extent that they are irreparably damaged and no longer feasible for use. Currently, most major groundwater basins are facing water quality and supply problems. Some communities along the Mojave River may experience a decline in water quantity and quality. The Newberry Springs/Harvard area has been prohibited from large scale agricultural activities because of water consumption and the competing urban and rural uses. The ability of some of these communities to sustain current levels of urbanization is doubtful over the long term, unless imported waters are made available. Complicating the water issue are the almost 400 water agencies responsible for water delivery and quality in the County.

Various facilities for handling imported water include the California Aqueduct (which feeds Silverwood Lake and extends into Riverside County to Lake Perris), and the Colorado River Aqueduct (which feeds Gene Wash Reservoir and Copper Basin Reservoir near Parker Dam). These waters are managed by five state water contractors, the Mojave Water Agency, Chino Basin Municipal Water District, San Bernardino Valley Municipal Water District, Crestline/Lake Arrowhead Water Agency, and the Metropolitan Water District of Southern California. These agencies, along with local purveyors, have established manmade lakes for water conservation and recreational purposes. These include Lake Silverwood, Lake Arrowhead, and Big Bear Lake. Lake Gregory will be managed solely for recreation purposes.



The East Branch of the California Aquaduct as it cuts through the desert; Hesperia

Naturally occurring bodies of surface water include Baldwin Lake, Erwin Lake, Deadman Lake, Jenks Lake, Harper Lake, numerous desert dry lakes and the shoreline along the west bank of the Colorado River. Major drainages and flood plains are the last component of water resources within the County. These include the Lytle Creek and Cajon Wash, the Santa Ana River, Mill Creek, and City Creek in the Valley portions. The major desert features are the Mojave and Colorado Rivers. There are also many tributary drainage courses to the above watercourses which are too numerous to list; these drainage courses appear on USGS topographic maps.

The State Department of Water Resources (DWR) has identified 74 groundwater basins which are entirely or partly located within San Bernardino County. The Background Appendix lists and discusses the County's groundwater basins.

Imported water supplies are needed immediately in some areas of the County in order to sustain existing development and to accommodate projected growth. The Big Bear Valley, overlaying one of the smallest aquifer systems within the County, is threatened with water shortages and growth limitation as it is currently not entitled to any outside sources of water. Other constraints to importing water to communities in need are sometimes hard to overcome, such as long distances, costly pipelines, and limited or nonavailability of entitlements to **State Water Project** or Colorado River aqueduct water. These constraints are exemplified by the South Desert communities along Highway 62. As there are no delivery systems in place to utilize imported water from the California Aqueduct, these South Desert communities require the construction of a 70-mile pipeline and increased entitlements to imported water to sustain current levels of demand and growth.

In accordance with State and regional efforts to develop comprehensive water resource policies, and to provide reasonable levels of protection, for beneficial uses of water, the County developed and approved a First Supervisorial District water policy in 1987. This policy recognizes this natural resource constraint and is now being implemented. Recognizing that the highest beneficial use of water is for drinking water purposes, the County has developed the policies in this section and will continue to encourage input from the approximately 400 **responsible authorities**. The policies in this section attempt to include and reiterate existing policies and practices.

Potential actions to address the water issue may include: limiting or conditioning wasteful or large consumers, utilizing conservation measures including drought tolerant landscaping and flow restrictors, increasing drainage and flood **recharge** of basins, protecting water from contamination from sewerage systems, the blending of local water with imported water to extend the life of aquifers, and limiting or prohibiting new development in areas where there are no adequate and reliable supplies of water. This section of the General Plan should recognize variations within the nearly 21,000 square miles and recognize the differences between geographic regions of the County. Policies developed for this issue required coordination among the water agencies in the County, with background reports and draft policies widely circulated. (See the Water Distribution Systems and Groundwater Supply/Quality sections of the Background Appendix.)

GOALS

The County shall encourage and participate with the local responsible water authorities to:

C-20 Provide a balanced hydrological system in terms of withdrawal and replenishment of water from **groundwater basins**.

C-21 Continue and expand importation of water to sustain the existing population and projected growth; actively support the completion of the State Water Project, improvements in the Sacramento/San Joaquin Delta and to the Colorado River Aqueduct System, and the use of water transfers and water marketing techniques.

C-22 Reduce the existing consumption of water by implementing conservation measures prior to approving new development in areas experiencing water supply shortages.

C-23 Cooperate and coordinate with governmental agencies at all levels, including the Regional Water Quality Control Boards, the State Department of Health Services, the State Depart-

ment of Water Resources, and all other water agencies to ensure water supplies of adequate quantity and quality to meet the needs of San Bernardino County.

C-24 Plan and construct new water distribution and treatment systems on the basis of the County's adopted growth forecast.

C-25 Maximize the use of existing water resources through conservation programs and efficient ground and surface water management programs.

C-26 Improve and rehabilitate water distribution systems to prevent losses from leakages and to maximize efficient water use.

C-27 Conservation, reclamation and reuse, and other refinements in water management practices should be an essential part of all water supply programs, whether in urban, rural, or agricultural sectors.

C-28 Protect and maintain high quality water with the objective being the protection of surface and groundwater from degradation and drinking water being the highest and most beneficial use.

C-29 Approve new development conditioned on the availability of adequate and reliable water supplies and conveyance systems.

POLICIES/ACTIONS

WA-1 Because Federal, State, regional and local responsible water authorities are jointly responsible for developing, implementing and continuing to manage basin-wide water management plans for the continuous provision of potable water supplies, the following shall be implemented:

a. Recognize the jurisdiction and authority of all agencies providing water service within the County with consideration given to the County's diverse geographic regions.

b. Coordinate with all agencies providing water service and protection to achieve effective local and regional planning to:

i. Promote cooperation and sharing of information.

ii. Provide mutual assistance in regional projects.

iii. Keep members informed of projects and activities.

c. Upon request by the local responsible authority, and pursuant to State law, assist in the development and implementation of regional water resource management plans incorporating individual district plans that will:

i. Identify needs for recharge of overdrafted groundwater basins and proceed with plans for development and management.

ii. Prioritize critical areas of basins in overdraft, sole source basins, or quality degradation problems.

iii. Maintain or enhance natural water recharge characteristics.

iv. Create recharge areas for overdrafted basins offsetting increased consumption attributable to new development.

v. Cooperate with state water contract agencies in the purchase and distribution of State Water Project water.

vi. Share information on supply and demand for water and projected service levels and capacities that can be utilized in Infrastructure Assessment models.

WA-2 Because an adequate and reliable supply of water must be ensured at all times for emergency preparedness, the responsible authorities shall develop urgency measures, to be enacted during water shortages due to mechanical or conveyance system breakdown or failure, insufficient water supply, or unacceptable water quality, which will:

a. Where appropriate, develop temporary interties between retail water systems.

b. Prohibit nonessential water uses during declared emergencies in the directly affected water supply area, with coordination between County DEHS and responsible authorities.

c. Cease the acceptance of land development applications in the directly affected water supply area.

WA-3 Because the development approval process may be dependent upon the location and size of water distribution facilities and the timing of their use, the responsible authority and the County shall:

a. Consider the effect of development proposals and whether or not they should include the phased construction of water production and distribution systems; hydrologic studies may be required as appropriate.

b. The County DEHS will continue to show that adequate and reliable water supply is verified in conformance with responsibilities assigned by State law and the Cooperative Operating Agreement between County DEHS and State Department of Health.

c. Utilize the Cooperative Operating Agreement between the State Department of Health and the County DEHS to monitor and provide information to the responsible authorities on a continual basis, compile annual reports on the capacity and condition of distribution systems, and develop contingency plans for water resource management.

d. Develop a systematic, ongoing assessment of regional and local water supply needs and capabilities to serve planned land uses as defined in the General Plan.

e. Coordinate with the State Department of Health, Public Water Supply Branch (San Bernardino), and obtain the annual reports of large public water systems Countywide as they become available.

f. Monitor future development to ensure that sufficient local water supply or alternative imported water supplies can be provided.

g. Cooperate with Special Districts (Board-governed and self-governed), independent water agencies and the cities, to assist in the planning and construction of new water supply and distribution facilities on the basis of the Cities' and County's adopted growth forecasts.

h. Cooperate to provide the consistency of water supply and distribution facilities with the Capital Improvement Programs of the County and other public agencies pursuant to Government Code Section 65403.

WA-4 Because water resources are limited, and the use of reclaimed wastewater and other non-potable water will play an important part in conserving water supplies, the County shall encourage the responsible authority to:

a. Require water reclamation systems and the use of reclaimed wastewater and other non-potable water to the maximum extent feasible for:

i. Agricultural uses

ii. Industrial uses

iii. Recreational uses

iv. Landscape irrigation

v. Groundwater recharge projects

b. Apply water conservation and water reuse (reclamation) measures which are consistent with policies/regulations on wastewater.

WA-5 Because long term local or regional area-wide commitments to water supply and distribution services are necessary for the orderly development of urban areas, the County shall:

a. Encourage new development to locate in those areas already served or capable of being served by an existing approved domestic water supply system, with priority given to those areas suitable for infill development.

b. Include water supply and distribution facilities as one of the required services in the Improvement Level (IL) system which is part of the General Plan and as designated on the Infrastructure Overlay Maps.

WA-6 Because water conservation measures are an essential element in water management practices necessary to meet present and future needs, the following shall be implemented by the County:

a. Encourage the responsible authority to develop new and strengthen existing conservation and reclamation programs to reduce water consumption and prevent loss or waste of water.

b. Continue promoting public education programs to increase consumer awareness about the need for and benefits of water conservation.

c. Encourage the cities to develop water conservation elements in their General Plans and guidelines that can be implemented through the land use planning and development approval process.

d. Develop lists of drought-resistant water conserving plants to be required for landscaping in new development in the Valley, Mountain, and Desert areas, appropriate to the area of each responsible authority. The requirements for drought-resistant landscaping will also apply to one model home per tract.

e. Require low-volume flush toilets and low flow plumbing fixtures as conditions of approval for all new development pursuant to the Uniform Plumbing Code and State requirements.

f. Require new development to utilize water conservation measures recommended by the water agency or purveyor which supplies the development with water.

g. Require a finding, prior to approval of any agricultural land use district map creation or extension, that adequate and reliable supplies of water will be available for existing domestic demands when water is provided by a common source or purveyor.

h. Encourage the responsible authority to develop ordinances to regulate non-essential water use and to establish water conservation measures in areas experiencing groundwater supply problems or overdraft as defined by State and local agencies.

i. Encourage landscape and irrigation plans which use water conserving irrigation systems and landscape design utilizing the following features:

i. Minimize the use of water through the use of automatic **tensiometers** and automatic rain sensors, and give attention to weather conditions and other water-use minimizing techniques.

ii. Incorporate low-output sprinkler heads and drip irrigation systems.

iii. Minimize runoff and evaporation.

iv. Maximize the use of drought-tolerant or low-water-use plants.

v. Use mulch and topsoil to improve the water holding capacity of the soil.

WA-7 Because certain types of major industrial or commercial development have the potential to consume vast quantities of water, a program shall be developed with the responsible authority to require such uses to recycle and/or provide offsets for water consumed via purchase of imported supplies or contribution to future conveyance systems.

WA-8 Because more and more water resources require treatment before they can be used, the County and responsible authority shall:

a. Support reasonable water quality standards and adequate wastewater discharge requirements for surface and groundwater which will safeguard public health.

b. Support the safe management of hazardous materials to avoid the pollution of both surface and groundwaters. Hazardous waste disposal facilities should be prohibited within any area known to be or suspected of supplying principal recharge to a regional aquifer. Regional aquifers requiring special protection as sources of drinking water, as identified by Bulletin #118, 1975, of the California Department of Water Resources consist of the following (State assigned aquifer number is in parentheses):

- Ames Valley (7-16)
- Antelope Valley (6-44)
- Bear Valley (8-9)
- Bessemer Valley (7-15)
- Big Meadows Valley (8-7)
- Caves Canyon Valley (6-38)
- Copper Mountain Valley (7-11)
- Dale Valley (7-9)
- Deadman Valley (7-13)
- El Mirage Valley (6-43)
- Harper Valley (6-47)
- Helendale Fault Valley (7-48)
- Iron Ridge Area (7-50)
- Johnson Valley (7-18)
- Kane Wash Area (6-89)
- Lavic Valley (7-14)
- Lost Horse Valley (7-51)
- Lower Mojave River Valley (6-40)
- Lucerne Valley (7-19)
- Means Valley (7-17)
- Middle Mojave River Valley (6-41)
- Morongo Valley (7-20)
- Needles Valley (7-44)
- Pipes Canyon Fault Valley (7-49)
- Seven Oaks Valley (8-8)
- Troy Valley (6-39)
- Twentynine Palms Valley (7-10)
- Upper Mojave River Valley (6-42)
- Warren Valley (7-12)
- Upper Santa Ana Valley (8-2)

c. Assist in the development of groundwater quality management plans with emphasis on protection of the quality of underground waters from non-point pollution sources.

d. Protect drinking water supply and groundwater through the regulation of well construction and destruction.

e. Cooperate with local sewering agencies to encourage the development of general sewering plans for the urbanizing areas to protect groundwater quality.

f. Work with Regional Water Quality Control Boards to establish uniform criteria for appropriate sewering options for new development.

g. Cooperate with State, regional and responsible authorities to expand water sampling programs to determine ambient groundwater quality conditions affecting public, agricultural, and private wells. Identify the sources, extent and types of organic and inorganic groundwater contaminants, and evaluate their impacts to the groundwater resources.

h. Provide local input to the Lahontan, Colorado, and Santa Ana Water Quality Control Board Basin Plan review and update process to closely reflect the water quality concerns impacting water resource and land use planning decisions.

i. Establish setbacks from ephemeral and perennial streams regulating the location of septic systems, habitable structures, and other impervious or potentially polluting uses.

j. Develop a water resource information system to preclude aquifer degradation. Monitor development and consumption trends to evaluate effectiveness of program implementation.

WA-9 Because water supply and distribution systems must ensure water for both existing and future development, utilize water resources in accordance with agreed management programs, and correct the depletion of the County's groundwater resources, the County and responsible authority will cooperate to ensure adequate and reliable water resources and:

a. Assist in the development of additional conveyance facilities and use of groundwater basins to store surplus surface or imported water.

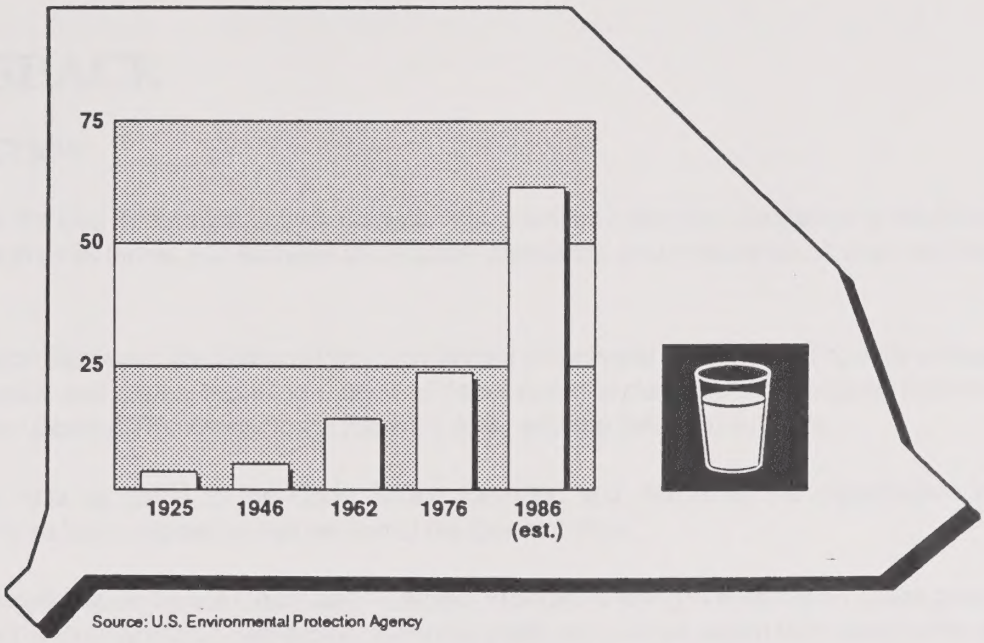
b. Assist local distribution systems to interconnect with regional and other local systems where feasible, to assist in maximizing use of local ground and surface water during droughts and emergencies.

c. Develop guidelines restricting the creation of new, small, private water systems where an existing large water system can more reliably serve the public interest.

d. Assist in the development of alternative water systems in areas experiencing water quality or quantity problems.

e. Discourage new wells pumping one (1) acre foot or less per year, other than those used for domestic purposes or those drilled by responsible authorities.

Number of regulated contaminants in drinking water as designated by the EPA



Source: U.S. Environmental Protection Agency

5. OPEN SPACE

INTRODUCTION

This section of the San Bernardino County General Plan provides a detailed discussion of the issue of open space in all its forms, and includes information, standards, and policies which deal with this issue.

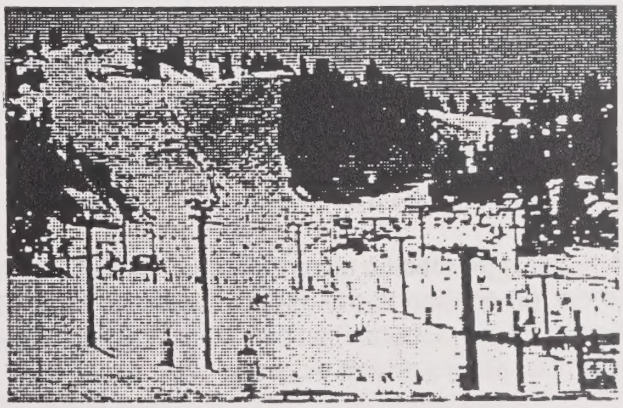
The Open Space Element of the General Plan is organized into several sections dealing with various open space topics and issues, including a detailed discussion of a master plan of regional trails for San Bernardino County. This Open Space Element deals with the following subjects:

Introduction: Acts as guide to the Open Space Element, and describes the organization of information and policy contained in this section of the General Plan.

Section 1. General Open Space Goals and Policies: Provides a listing of major open space goals and policies of the County of San Bernardino, including goals and policies drawn from other portions of the General Plan and policies and actions related to the overall implementation of the County's proposed open space system. It also contains a discussion of the open space information shown on the Resources Overlay.

Section 2. Coordinating Open Space Planning: Describes a variety of issues related to the coordination of land use planning within the County to ensure that all land use decisions take into account the County's desire to establish and maintain a quality open space system. This section also describes efforts which should be made within County government and between jurisdictions within the County to coordinate the planning and implementation of the regional open space plan.

Skiers on a sunny winter day; Big Bear



Section 3. Open Space Valuing System: Describes an Open Space Valuing System which can be used to rate the value or priority of open space areas. The Open Space Valuing System is intended to be used in the long-term implementation of the regional open space plan to guide the use of County funds and/or regulatory efforts into acquiring or otherwise protecting areas most suited for, or in need of, various types of open space. The Valuing System provides an objective measure of the relative value of land for open space uses.

Section 4. Trails: Explains the County's Regional Trails Master Plan, and contains detailed policies and standards to be followed in the implementation of the trails system. These standards guide both the design and operation of the trails system.

Section 5. Preservation of Natural Resources: Deals with open space areas which are noted for the presence of natural features worthy of preservation. Included are areas which contain threatened or endangered species or their habitats.

Section 6. Managed Production of Resources: Deals with open space which is characterized by its potential for economic use: areas which are suited for agriculture, mining operations, timber harvesting, and other extractive uses.

Section 7. Recreation: Deals with open space as a resource to be used for recreational purposes, including regional parks and other areas which are suited for hiking, nature enjoyment, skiing, and similar uses.

Section 8. Scenic Resources: Describes the County's scenic resources, and provides policies and standards which apply to the need to preserve important scenic vistas as part of an overall open space system.

Section 9. Public Health and Safety: Discusses with open space as part of an overall system of protection of the public health and safety. Issues in this section include open space as a part of a system to prevent damage and injury due to flooding, earthquakes, pipeline accidents, and other catastrophes. Also describes open space in relation to the landfills and airports within the County.

Each section of this Open Space Element (with some exceptions) includes the following items:

1. A **summary of the open space issues** related to that topic.

2. **Specific information** on open space topics related to the particular issue. This includes a discussion of **why open space is needed** for the particular resource or issue, and a **reference to detailed information**, both in the General Plan and from other sources.

3. A **reference to goals and policies from other portions of the General Plan** which relate to the particular topic. These policies are listed by number for reference in other sections.

   Goals and policies referenced in this element are intended to guide planners and persons using this Open Space Element to other areas of the General Plan which should be consulted for further information on open space issues.

4. A listing of **specific open space goals and policies related to the particular open space issue**. (In addition to the policies presented in this Open Space Element, the Regional Plan Section of the General Plan also contain policies specific to a region or community area; these regional sections should be consulted to determine if specific open space policies apply.)

SECTION 1. GENERAL OPEN SPACE NEEDS, GOALS AND POLICIES

A. Open Space In San Bernardino County

San Bernardino County contains an abundant amount of open space, including areas of outstanding scenic value; areas particularly suited for park and recreation purposes, and areas which serve as links between major recreation and open-space reservations. The County also includes vast areas of open land which are suited to uses which require open areas, including agriculture, grazing, mining, and the managed production of resources (such as timber harvesting). Much of this land is included in areas managed by the federal Bureau of Land Management (BLM), the U.S. Forest Service, and the National Park Service.

However, while the County contains vast open space areas, the majority of persons living in San Bernardino County live in the relatively urbanized Valley region, and must travel to distant locations to enjoy large open areas. Most of the County's large open space areas in the Desert region are inaccessible to the majority of San Bernardino County residents.

The chart below illustrates the multitude of State and Federal agencies responsible for managing a variety of open space resources within the County. Further information on areas within the County which are managed by various state, federal, and private agencies is provided in the Natural Resources section of this Open Space Element.

TABLE A

JURISDICTIONAL CONTROL OF OPEN SPACE LANDS

	Approx. Acres	Approx. Square Miles
Entire County	12,904,960	20,164
National Forest	467,522	730
Bureau of Land Management (U.S.)	7,035,092	10,992
Bureau of Reclamation (U.S.)	36,212	57
Fish & Wildlife (U.S.)	7,612	12
National Park Service	1,867,538	2,918
Army Corps of Engineers	2,926	5
Federal Aviation Agency	1,075	2
State Lands	209,920	328
Bureau of Indian Affairs	71,627	112
Total*	9,867,047	15,418

* *Total of major open space lands under various forms of public control.*

As a result of its wealth of open space areas, the County of San Bernardino also contains a variety of scenic resources, which are themselves considered part of the County's open space resources, and which must be considered in the planning process. Preservation of these open space areas and vistas is crucial to attaining the Countywide goal of providing a desired quality of life.

B. Types of Open Space

This Open Space Element recognizes that open space comes in many forms. Although the typical definition of "open space" might include lands such as National Parks or other areas set aside to protect especially valuable scenic or natural areas, the issue of open space today encompasses a wide variety of land uses which are generally linked by the need for open, undeveloped land.

This definition of "open space" as any land set aside for uses which require a lack of development to function properly includes the following general types of open space (not in order of importance):

1. Open Space for Preservation of Natural Resources

This is the type of open space which is perhaps most typically envisioned as "open" areas which are noted for the presence of natural features worthy of preservation. In general, this type of open space is required to protect natural features of the land or environment, such as habitats for threatened or endangered plants or animals, important watersheds, rivers and streams, and other similar qualities.

2. Open Space for Managed Production of Resources

While many of man's uses of the land, such as housing, industrial facilities, and business centers, require the urbanization of the land, a number of economically productive uses also exist which rely on open land unencumbered by development or the responsibilities brought on by adjacent uses. This category of open space includes those uses which either require this open land, (including farming and mineral production) or which harvest products from lands which have not been urbanized (such as grazing or the harvesting of timber).

3. Open Space for Recreation

While modern society has created many types of recreation which can occur in an urban setting--or even within buildings--open areas in the outdoors remain an important location for many Americans seeking rest and relaxation. This type of open space can include areas such as the National Forests, where visitors seek recreation by hiking, camping, picnicking, and skiing, and areas where use of off-highway vehicles (OHVs) is permitted.

4. Open Space for Scenic Resources

San Bernardino is a County rich in scenic resources. The dramatic backdrop of the San Bernardino Mountains, the beauty of the mountain scenery itself, and the vast expanses of desert found within the County all contribute to the County's scenic beauty. In addition, many smaller, local areas throughout the County, due to special or unique features--including manmade features--can be considered "scenic." One common feature which these areas share is the need for open land to be enjoyed--natural backdrops, for instance, cannot be properly viewed or appreciated if screened by buildings or scarred by development. Scenic vistas from the highways which cross the County can similarly be diminished or destroyed by the indiscriminate placement of advertising signs, buildings, or manmade features.

5. Open Space for Public Health and Safety

The final major category of open space which this Open Space Element addresses is land which must be set aside to protect the health and safety of the public. This category of open space includes both areas which are set aside to distance persons and buildings from hazardous situations (such as earthquake faults or areas subject to flooding) and open land which is itself part of a system built to protect health and safety (such as flood control channels or basins). Also included in this category of open space are land uses which are required as part of the overall functioning of modern society and which include or require undeveloped land as a resource or a buffer; this includes landfills and airports.

C. The Need to Plan for Open Space Uses

Failure to provide adequate open space can result in several undesirable effects. Without a plan of open spaces and trails in place, or in the absence of the conscientious application of policies related to open space, new development can quickly consume valuable open space lands. Inappropriate development can also result in the loss of open space uses through the alterations of natural features. Lastly, conflicting desires for use of open space lands can result in heated controversy. Off-highway vehicle use within the County has resulted in tremendous conflicts, particularly in terms of trespass upon private lands, and destruction of natural habitats; other conflicts can also occur, such as over-use of sensitive lands for hiking, mountain bicycling, or recreation.

In addition, the pattern of open space and developed lands in the County has created an imbalance in the need vs. the supply of open space lands, since most County residents live in the urbanized Valley areas, while most open space is located some distance away in the mountains and deserts. As a result, areas that provide for recreational open space uses are being over utilized. This is also due, in part, to the fact that the effort to preserve new open space in the urbanized Valley and Desert regions has fallen short of identified regional needs. Additional open space areas are needed to provide: (1) a principle source of recreational opportunities; (2) relief from urbanization; and (3) a sense of community identity.

The land ownership patterns of San Bernardino County outside of the urbanizing areas are often referred to as a "checkerboard." This description reflects the mix of public and private land inholdings which currently exist within the County. Development of private lands can influence the direction of the public lands if not managed properly.

D. General Plan Goals Related to Open Space

The following goals, which are part of other sections of the County General Plan, are referenced here to illustrate the County's overall goals related to the preservation and enhancement of open space lands. These goals should be referred to as an illustration of the County's commitment to open space issues.

County Goals: 1, 5, 8, 10, 11

Land Use/Growth Management Goals: D-47, D-49, D-50

1. General Plan Policies Related to Open Space

The following policies, which are located in other sections of the General Plan, are referenced here to illustrate applicable County policy toward open space issues.

Housing/Demographics: HE-11, HE-12

E. General Open Space Policies/Actions

This Element contains several subsequent sections dealing with the categories of open space lands identified above, and with other open space issues. Each of those sections contains policy direction related to the specific open space issue.

The policies and actions listed below are related to the Countywide goals listed above, as well as to Countywide Open Space Goals contained in this Element. The following policies apply to many types of open space, and are presented here in addition to other, issue-specific policies in this Element. For more specific policies dealing with a particular category of open space, refer to the appropriate section of this Element.

OR-1 Because preservation of open space lands will be facilitated through the application of land use standards, the County shall implement the following actions:

a. Utilize appropriate land use categories on the Land Use maps to provide for uses which respect open space values. Land Use districts appropriate for various types of open space preservation include: Agriculture (AG), Floodway (FW), Resource Conservation (RC), Institutional (IN).

b. Develop and apply development policies/standards to support retention of open space lands by: requiring large lot sizes, high percentage of open space or agricultural uses, and clustering.

c. Utilize the Hazard and Resources Overlay Maps to identify areas suitable or required for retention as open space. Resources and issues identified on the Overlays which indicate open space as an appropriate use may include: flood, fire, geologic, aviation, noise, cultural, prime soils, biological, scenic resources, minerals, agricultural preserves, utility corridors, water supply and water recharge.

d. Apply the standards shown in Table B of this Open Space Element, "Potential Multiple Uses of Open Space Lands," when assessing potential multiple uses of open space lands.

e. Ensure that any portion of the planning area that is under public and quasi-public domain but not necessary for public or quasi-public use be considered first for open space, and then for uses requiring development of the site.

OR-2 Because the County desires to protect open space lands, and since the County has a unique ability to implement open space programs countywide, the County shall acquire and develop public open space through the establishment of a long-term funding source for land purchase/lease and open space operations.

F. Open Space Action Programs: Implementation and Funding

Methods for implementing and funding the countywide open space system (in those instances in which open space lands are publicly maintained) will be vital to the achievement of the County's open space goals. The following Open Space Action Programs for Implementation, which seek to achieve the Countywide goals listed in this section and elsewhere in this Element, apply to all appropriate portions of the open space/trails system.

For further information on the Implementation Plan for the regional open space and trails system, the Open Space Background Appendix should be consulted.

OR-3 Because implementation of the open space policies and programs in this Element will require the application of specific policies and action programs and the availability of funding and other implementation mechanisms, the County shall:

a. Seek approval of state enabling legislation to provide the County with the ability to establish a Regional Park and Open Space District (or an Open Space-Only District) and a property assessment with a simple majority vote.

b. Seek to implement a variety of funding strategies, as identified in the separate Implementation Report prepared for the Open Space Plan.

c. Utilize Special Assessment Districts, Joint Assessment Districts, and Mello-Roos Community Facilities Districts, where appropriate, to finance the acquisition and maintenance of public open space lands and trails.

d. Prepare a report outlining the economic effects of open space, focusing on potential tourism revenues, the effect of open space on adjacent property values, and the relative costs of providing open space management or urban services for a site.

e. If appropriate, seek a Park Bond Issue or Special Bond Issues to help fund acquisition, development, and ongoing maintenance of open space.

f. Actively seek gifts and donations of open space lands and trail rights of way or easements.

g. Actively seek state, federal, and private grants for the purpose of financing open space and trail acquisition, construction, and operation.

h. Use general funds, user fees, proceeds from concession operations, and other sources which may be available to finance open space and trail acquisition, construction, and operation.

i. Seek Joint Powers Agreements and coordination with other jurisdictions' Plans.

j. Include open space and trail acquisition and development in its Capital Improvement Programs.

G. Open Space Information on the Resources Overlay

An important portion of this Open Space Element is the Resources Overlay, which provides information on the general location of a variety of open space features which are proposed to be acquired or maintained either by the County or through the use of land use regulations.

1. Use of Open Space Information on the Resources Overlay

The Resources Overlay is intended to be used as one source of information, in the land use planning process, and is intended to depict major features of the regional open space and trail system. Open Space information shown on the Resources Overlay is by necessity general, as discussed below; specific determinations of the boundaries of open space areas, alignments of trails, and locations of open space features will require more detailed planning.

The Resources Overlay is intended to be used as a single source of information for use in open space planning. However, since some information on open space issues is also maintained by other agencies, a major purpose of this Open Space Element is to direct the public and planners to other sources of information elsewhere in the General Plan or in other documents which must be referenced in the open space planning process.

2. Open Space Information on the Resources Overlay

The Resources Overlay, which is part of the County's countywide GIS computerized mapping, contains the following open space information:

Regional Trail Alignments The resources Overlay identifies the general alignments of primary and secondary regional trails. This information is conceptual, and does not show the exact alignments of trails. Trail alignments shown on the Resources Overlay are also described in the Trails section of this Open Space Element.

Open Space Policy Areas The Resources Overlay identifies areas in which specific open space resources or areas have been identified. The identification of Policy Areas on the Resources Overlay is not a complete representation of all areas in which policies will be applied. Policies intended to preserve open space for a variety of purposes apply in all unincorporated areas of the County.

Wildlife Corridor Zones These indicate the general locations of areas within which major wildlife corridors should be provided. The actual size and location of these corridors will need to be determined based on future detailed study. The Resources Overlay identifies only MAJOR wildlife corridors. It is expected that application of policies in this Open Space Element will result in the establishment of major and minor wildlife corridors throughout the County.

Greenbelt Areas These indicate the general location of corridors along regional trail alignments in which expanded landscaping or natural plantings are proposed to provide scenic resources and opportunity for wildlife use.

Buffer Areas These indicate general areas in which reduced land use densities, land use controls, design considerations, or other planning programs should be used to reduce detrimental effects on areas within the buffer.

The Resources Overlay also identifies the general locations of regional parks, selected major lakes, and the boundaries of the National Forest.

As noted above and on the Resources Overlay, the information depicted is general in location, reflecting the sometimes undetermined locations of open space resources. And, as noted above, this information is complex and detailed, and is located on a variety of other maps and in other documents. This Open Space Element directs the reader to these other sources wherever necessary.

3. Open Space Areas Shown on the Resources Overlay

Policy areas, wildlife corridor areas, and trail alignments shown on the Resources Overlay are listed and described in further detail in the Open Space Background Appendix. The Background Appendix describes the specific purpose for each zone, area, and trail, and specific policies which apply. The Background Appendix should be consulted for further information on the Resources Overlay.

SECTION 2. COORDINATING OPEN SPACE PLANNING

An important issue which this Open Space Element addresses is the diversity of open space, and the need to coordinate the planning and implementation of an open space plan. This will both protect those types of open space which must be free from urbanization or encroachment and maximize the value of open space lands by providing for multiple uses where possible.

In addition to coordinating planning decisions, this Open Space Element also recognizes the need to coordinate decision-making by various agencies and jurisdictions within and outside of County government which has a direct or indirect effect on the implementation of a regional open space and trails system. Open spaces and trails in many areas cross a multitude of jurisdictional boundaries, but must be viewed--and planned for--in their entirety to function properly.

The following discussions describe the general types of open space which this Open Space Element addresses, how these areas can be most effectively used, and how County agencies and jurisdictions outside County government can coordinate to achieve the regional open space and trails system.

A. Multiple Use of Open Space Areas

As discussed in Section 1 of this Element, "open space" includes a diversity of land uses. However, open space lands should not be viewed as falling into discrete categories, in which only one use can occur. In many (but not all) cases, open space lands can serve a variety of functions.

Table B, on the following pages, discusses the relationships which generally occur between various "open space" uses of land. The table also provides an assessment of the compatibility of one open space use with another. This compatibility ranges from "slight or no," indicating that the uses in question should not be allowed to occur on the same or adjacent properties, to "some," indicating that measures may be available which would allow the uses to coexist, to "strong," which indicates that the uses are compatible (perhaps complementary) and can generally be allowed to occur simultaneously on the same land.

TABLE B
POTENTIAL MULTIPLE USES OF OPEN SPACE LANDS

Open Space Category	Potential Multiple Uses
Preservation of Natural Resources	**Strong**[1] potential for multiple use as scenic areas, particularly if preservation of natural resources requires large areas of open land visible from urban areas, roadways, or trails. **Strong** potential for multiple use as watershed area. **Strong** potential for use as part of a coordinated flood control system which utilizes open areas or watercourses to detain or direct storm flows. **Some**[2] potential for use as timber or grazing land, if protected resources can withstand this type of harvest. **Slight or No**[3] potential for multiple use for surface mining or other uses which destroy or substantially alter natural features. **Slight or No** potential for farming which involves clearing of the land, the introduction of non-native plant or animal species, or the use of irrigation. **Slight or No** potential for residential use, except at very low densities and where clearing and fencing of individual properties is prohibited.
Managed Production of Resources	If used for low-intensity grazing or similar use, **Some potential for multiple use to preserve natural resources (see discussion above).** If surface mined, **Some** potential for multiple use as scenic open space, if resource extraction does visibly not damage natural features. If surface mined, **No** potential for immediate use for other open space uses (with the exception of public health and safety protection; **Some** potential for joint use in this situation if mining occurs within flood control basins or channels). If surface mined, **Some** potential for long-term (post-closure) use as natural or recreational open space, provided that mine closure is properly planned. If land is held in reserve (as for future mining or farming), **Some** potential for short-term use as natural resource preservation or recreation area until mining, farming, or other extractive use begins.

TABLE B (Cont'd)

POTENTIAL MULTIPLE USES OF OPEN SPACE LANDS

Open Space Category	Potential Multiple Uses
	If farmed with field crops or orchards, **No** potential for use of farmed land for natural resource protection. If intensively farmed, **Slight or No** potential for recreational use, although trails may pass through farmed areas. If intensively farmed, **Some** potential for scenic qualities, depending on type of farming.
Open Space in Recreation	In general, **Strong** potential for multiple use as scenic open space, especially in urbanized areas. **Strong** potential for multiple use as open space to protect public health and safety, such as trail systems adjacent to or within flood control facilities. **Some** potential for multiple use to protect natural resources, provided human presence does not damage protected features (such as threatened or endangered species). **Slight or No** potential for multiple use for resource extraction, unless: 1) extraction involves very low intensity use, such as grazing of forage, or 2) sufficient distance can be placed within a resource extraction site to protect public from hazards and provide a pleasurable recreation experience.
Open Space for Scenic Resources	**Strong** potential for multiple use as natural open space, if preservation of scenic features involves protecting natural vegetation and topography. **Some** potential for multiple use as open space for recreation, if scenic lands are open to the public. **Some** potential for multiple use as lands for resource extraction (see discussion above) if extraction is low-intensity and does not diminish scenic character or if resource use involves farming of a type which contains scenic worth.

TABLE B (Cont'd)

POTENTIAL MULTIPLE USES OF OPEN SPACE LANDS

Open Space Category	Potential Multiple Uses
Open Space for Health and Safety	Strong potential for multiple use as recreational open space, provided no immediate threat to safety exists which would preclude this use.
	Strong potential for use as scenic open space, especially if protection of health and safety involves use of open lands (such as for flood control facilities) or provides open areas in urban settings (such as pipeline rights of way or fault zones).
	Some potential for multiple use to preserve natural resources, if health and safety uses maintain or replace natural habitat values.
	Some potential for multiple use as resource extraction (mining), if this use occurs in conjunction with health and safety purpose.
	Some potential for multiple use for farming, if this use can take place in areas subject to safety hazards.

*1. **Strong** potential refers to situations in which multiple uses can almost always be achieved, and where uses are generally compatible.*
*2. **Some** potential refers to situations in which uses may in some cases be compatible, but where multiple uses are generally not suitable.*
*3. **Slight or No** potential refers to situations in which successful multiple use is generally very difficult or impossible to achieve, and most likely only occurs in special or unique circumstances.*

As shown in Table B, many open space uses can coexist, provided adequate measures are taken to allow multiple use to occur. Flood control lands, for instance, if managed to promote multiple use, can provide health and safety protection, natural habitat (in unlined drainage channels, for instance), and scenic resources (provided no concrete or unsightly features are visible).

As a general rule, multiple use of open space lands is limited by the most intensive single use taking place; open space uses which require lower levels of disturbance generally cannot coexist with a use which substantially disturbs the land. Maintenance of a generally low level of disturbance increases the potential for multiple use.

B. Interjurisdictional Cooperation

An important factor which this Open Space Element recognizes is the need for cooperation among individual jurisdictions within the County to successfully implement the regional open space and trail system. Cooperation between the County and individual cities is of course required for the implementation of many plans; it is of special importance for the regional open space plan because open lands, natural areas, and trail routes frequently cross jurisdictional borders.

The following sections provide information on goals and policies found elsewhere in the General Plan and action programs contained in this Open Space Element which support interjurisdictional cooperation.

C. General Plan Goals Related to Coordination of Open Space Planning

Many goals, which are part of other sections of the General Plan, deal with issues which affect open space of various types. The goals listed below, which are included in other parts of the General Plan, deal specifically with interjurisdictional cooperation.

Land Use/Growth Management Goals: D-59, D-60

1. General Plan Policies Related to Coordination of Open Space Planning

The following discussions, which are part of other sections of the General Plan, are listed here to illustrate County policy direction related to interjurisdictional cooperation.

Land Use/Growth Management

iii. Intergovernmental Coordination

Land Use/Growth Management

Land Use Planning in the Sphere of Influence (SOI) Areas

D. Interjurisdictional Cooperation Policies/Actions

The County shall seek to implement the following actions and programs to encourage interjurisdictional cooperation, in support of Countywide goals D-59 and D-60.

OR-4 Because the actions of the County should be coordinated to ensure that land use and other decisions with the potential to affect open space lands are carefully considered, the County shall form a Cooperating Committee consisting of high level representatives from the following:

- Local Agency Formation Commission
- Special Districts
- Regional Parks
- Transportation/Flood Control Department
- Planning

This Cooperating Committee shall, at a minimum, perform the following functions:

- Provide a forum for the regular transmission of proposed policies, land use and other policies, and infrastructure/open space/trails acquisition and development plans.
- Provide increased understanding among County agencies of their functions and current operations.
- Ensure that facilities (infrastructure, open space, regional parks, and other public facilities) and land uses are planned and coordinated among County agencies to avoid duplication of efforts, adverse effects on the plans of other agencies, and consistency with the County General Plan.

This Cooperating Committee should meet on a regular basis.

OR-5 Because the County's goals related to open space can be achieved only in cooperation with other agencies, the County shall work with other public agencies within the County to establish a Regional Interagency Open Space Committee consisting of representatives from all incorporated cities and state and federal agencies. This committee's function should be similar to the Coordinating Committee, focusing on providing a regular forum for the sharing of plans and information regarding open space and trails issues. This Regional Interagency Open Space Committee should meet on a regular basis.

OR-6 Because all planning functions which have the potential to affect open space lands should be coordinated, the County shall:

a. Implement and monitor the acquisition and disposal of all County-owned or controlled real property to evaluate the value of surplus lands for open space uses and ensure that all actions are consistent with the countywide open space plan.

b. Adopt policies which clearly state that the County General Plan is the guiding policy and planning document for all agencies within County government. Land use related plans and programs adopted and implemented by individual County agencies shall be required to be consistent with the General Plan.

SECTION 3. OPEN SPACE VALUING SYSTEM

A. Introduction

The system of valuing or rating land for its suitability as open space takes into account many factors and policy directions established by the County in its General Plan and this Open Space Element. Various key open space criteria will be examined related to any property being considered as open space by San Bernardino County.

Open Space as defined in the Open Space/Trails Element of the General Plan falls into one or more of the following categories: Open Space for the Preservation/Protection of Natural Resources, Open Space for the Managed Production of Resources, Preservation of Agricultural Lands, Open Space for Recreation/ Trails, Scenic Open Space, and Open Space for Public Health and Safety. A Valuing System has been developed to rate a given piece of property within one of these particular categories and helps relate the relative value of categories in relationship to each other, as discussed below.

In some cases, a particular piece of property or type of open space may require preservation for one purpose only. However, sites which offer the potential for multiple types of open space uses are typically of greater value than those which achieve only one end use. Table B, in the previous section of this Open Space Element, describes general potentials for multiple use of open space lands.

B. Evaluation Process

The process of ranking land for open space has been kept as simple as possible to allow for use by the public and decision-makers as well as County planning staff. A given piece of property will, after being evaluated with this system, be identified as being of High Value, Moderate Value or Low Value for a particular type of open space purpose. Within each of these three levels a point value, or score, will be earned to allow for comparison and prioritization of open space lands within a certain level.

The first step in the process is the decision to evaluate the open space potential of a given site, area, or corridor. A particular piece of land may be evaluated because it is being considered for acquisition by the County, is part of the environmental evaluation process, is in an area where a general plan amendment or zone change is proposed, or for other reasons. In most cases, it is assumed that lands which are valued will be subject to potential discretionary action by the County. This may include a decision to approve or deny a private or public project, to place restrictions on the use of the land, or to purchase the site for use as permanent open space.

Once a decision has been made to evaluate a particular site or area, a number of "Determining Questions," listed below, are asked in relation to the parcel of land in question. The answers to these questions will identify the Valuing Chart(s) to be used to rate the property. (Copies of the Valuing Charts follow this section.) If a particular site or area under consideration cannot be easily categorized by answering the Determining Questions, then it should be evaluated under the most likely category(s) to determine its highest and best open space use(s). Once the primary open space type(s) has been determined, then the questions related to that category are answered on the appropriate Valuing Chart. Valuing charts should be completed for all possible open space categories applicable to a given piece of land.

Each "yes" answer on a Valuing Chart typically receives one (1) point. Each "no" answer receives zero (0) points. When there are no more questions following the path on a Valuing Chart, the number of points earned should be totaled and the property identified as being of a High, Moderate or Low value.

Determining Questions

1. Have Hazardous Materials been disposed of within this site now or in the past? (See the hazardous materials site survey.) If such materials exist, the County should **not** acquire control of the property unless the contamination is shown to be minimal and easily removable/correctable.

2. Does the property contain significant natural resources, including biological resources (special plants and animals, natural habitat); geologic features; naturally occurring water, streams, etc.; or is it located in an area where little or no human contacts/modifications have occurred? If so, use the **Natural Resources Valuing Chart**.

3. Is the land currently in agricultural production, surrounded by agricultural uses, or designated as Prime Agricultural Soils by the State? If so, use the **Agricultural Preservation Valuing Chart**.

4. Is the primary proposed use of the site recreational in nature; from active recreational uses to scenic viewing? If so, use the **Recreation Valuing Chart**.

5. If the primary reason for the land's potential open space value is to ensure the public health and safety, refer to one or all of the Valuing Charts which apply to an appropriate open space use.

6. Is the primary proposed use of the land for trails? If so, use the **Trails Valuing Chart**.

C. Information Sources

To assist with the process of answering the questions above, this Open Space Element, the accompanying Open Space Background Appendix, and other sections of the General Plan, contain both information on various natural and manmade resources in the County, and sources outside the General Plan where this information can be obtained.

D. Valuing Charts

The charts shown in Figures 1, 2, 3, and 4 are to be used to evaluate a piece of property which is being considered for open space, discretionary action, or acquisition by the County. The charts include: Natural Resources Valuing Chart, Agricultural Preservation Valuing Chart, Recreational Open Space Valuing Chart, and the Trails Valuing Chart.

No valuing chart is included for lands with the primary use of managed resource production such as mining, forestry, or grazing. This category is not included because it is not the intent of the County to acquire these types of uses while production is ongoing. Should such properties be considered for acquisition following their productive life, then they should be reviewed on a case-by-case basis and ranked using the most appropriate valuing chart.

All types of open space will be preserved or protected by the goals and policies of this Element, but not all areas may be subject to direct purchase by the County.

E. Interpreting the Values

To assist in the use of the "values" which will be assigned in the valuing process, the following descriptions of value levels are provided. These descriptions outline the general categories of "high," "moderate," and "low," and provide guidance on the use of point values within each level.

High Value

"High" value describes those lands which contain resources, are in appropriate locations, or are in other ways very appropriate for open space uses. A "high" value rating for any site or property indicates that the County could be involved in the preservation/development of the site and may take the following actions:

1) Identify the area for the appropriate open space use if such a designation does not already exist.

2) Seek to implement the types of uses appropriate for the type of open space through discretionary and/or acquisition strategies.

Moderate Value

Property determined to be of "Moderate" value will generally have value for open space, although the status of on-site resources, location of the site in relation to other open space areas or urban lands, or other features may indicate a lower value or priority for open space preservation compared to "high" value lands. When lands are designated as "moderate" in open space value, the following actions are appropriate:

1) The land should be considered for appropriate open space uses and, if possible,

2) Regulated cooperatively with other organizations.

Low Value

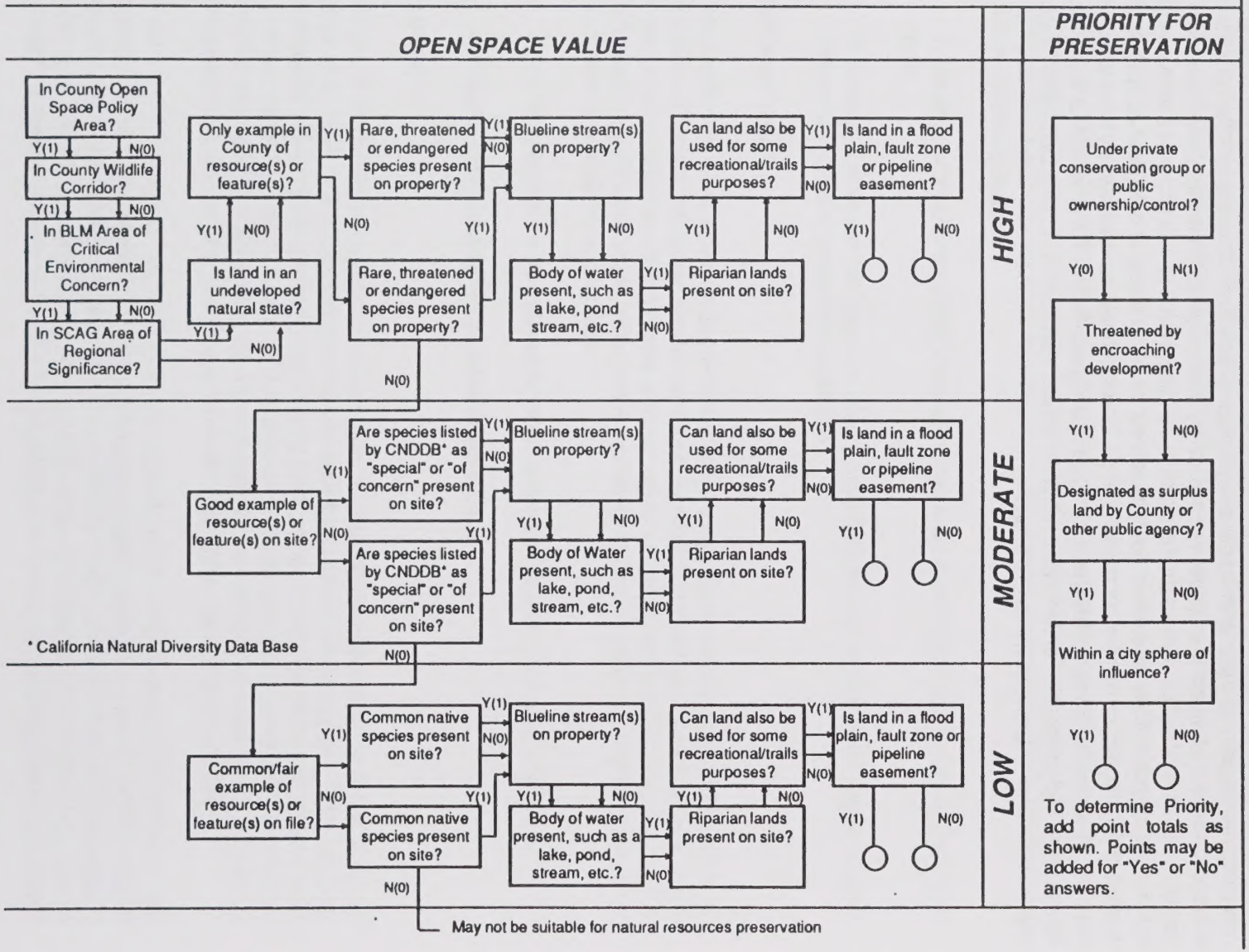
A rating of "low" value for a particular open space use indicates that the land should be evaluated on another Valuing Chart to determine if it has value for another open space use. If the property consistently receives a low rating on all valuing charts, it is not as suitable for open space uses as lands valued "high" and "moderate." Application of policies and actions within this Open Space Element should be pursued, but acquisition and/or the use of special strategies is most likely not appropriate, and should be reserved for lands with higher open space values.

Within the "High," "Moderate," or "Low" category, a piece of land will also receive a point total. This point value is used to rank potential areas <u>within each category</u>; point levels do not provide a basis of comparison between categories. For instance, within the "High" category, a piece of land with a high point total should be considered to be of greater value than another site which is also ranked in the "High" category but which received a lower point score. A piece of land that ranks in the "High"

category is of greater value for open space than a site in the "Moderate" category despite the point scores; the category ranking of "High," "Moderate," or "Low" is the primary indicator of a property's value as open space.

Each Valuing Chart also includes a section called, **"Priority for Preservation."** This section of the chart is used to give an indication of the urgency with which the County needs to pursue some action related to the property to ensure its status as open space now and in the future. The questions in this section of each chart are to be answered separately from all questions in the "Open Space Value" section. A point total will be derived for the property ranging from 0 to 4. A score of 0 in this section of the chart means that this property is not "threatened" or under threat of being lost as open space. A score of 4 in the section of the chart means that the County should act immediately to try to acquire, regulate, or otherwise preserve the property for its open space values if it is worthy of such action based on its high, moderate or low value for open space. Values of 1, 2, or 3 indicate a range of preservation priority between these extremes.

FIGURE 1
NATURAL RESOURCES VALUING CHART



To determine Priority, add point totals as shown. Points may be added for "Yes" or "No" answers.

Project File No: _____

COUNTY REGION

Valley _____

Mountain _____

Desert _____

Property Owner Name/ Address

_____

_____

_____

Acreage _____

OTHER VALUING CHARTS COMPLETED FOR SAME PROPERTY

Agricultural Preservation: _____

Trails: _____

Recreation Scenic: _____

Natural Resources: _____

VALUING INITIATED BY:

Staff Review _____

General Public _____

Supervisor _____

Open Space/ Parks District _____

Other _____

OPEN SPACE VALUE LEVEL AND POINT RANKING

	Max. Pts.	Pts. Earned
High:	12	_____
Moderate:	13	_____
Low:	12	_____

PRIORITY FOR PRESERVATION POINT RANKINGS

Point Total: _____
(Max. pts. = 4)

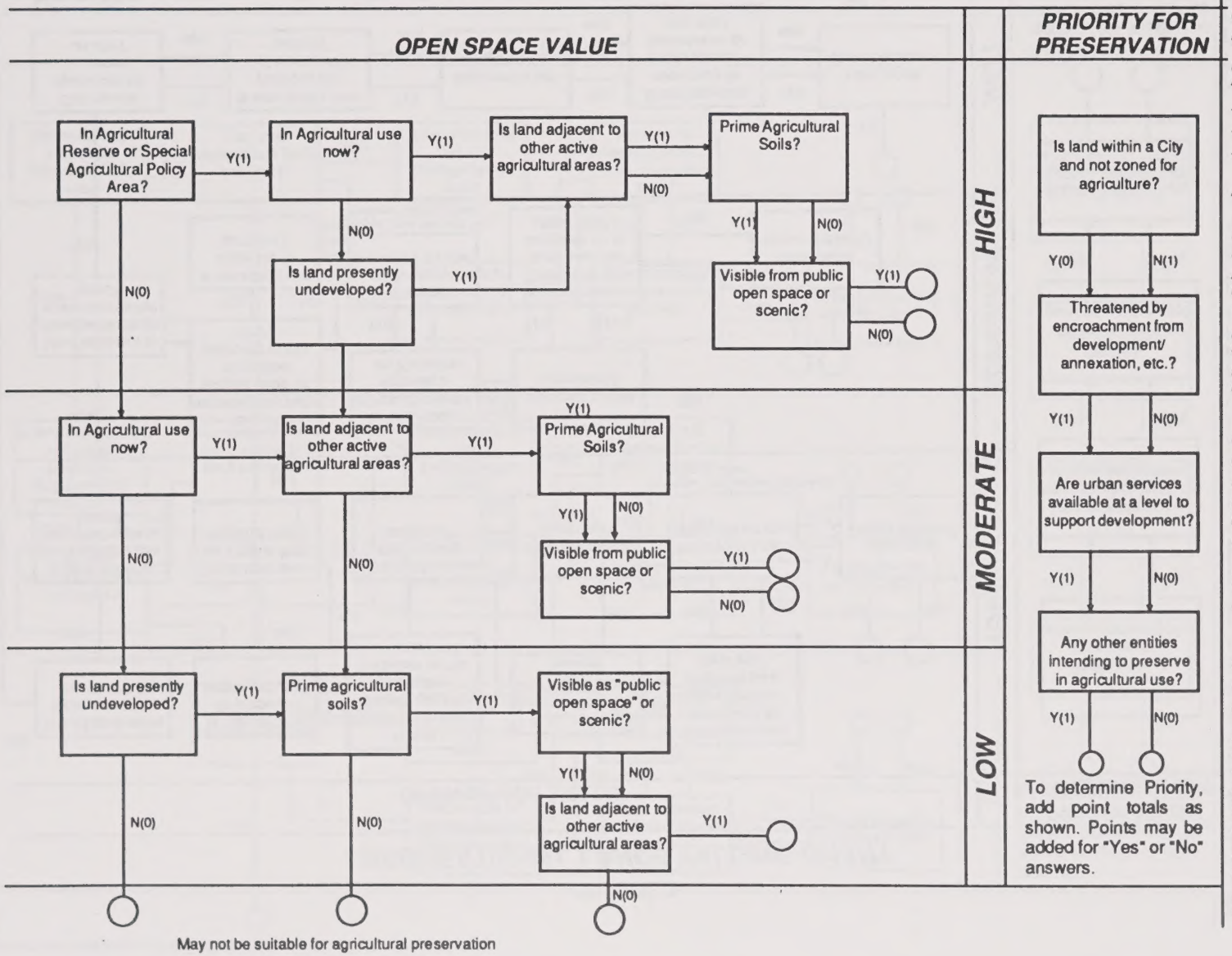
Evaluators Name:

_____

Date Evaluated: _____

Date Project Submitted: _____

FIGURE 2
AGRICULTURAL LANDS VALUING CHART



Project File No: _____

COUNTY REGION

Valley _____

Mountain _____

Desert _____

Property Owner Name/ Address

_____

_____

_____

Acreage _____

OTHER VALUING CHARTS COMPLETED FOR SAME PROPERTY

Agricultural Preservation: _____

Trails: _____

Recreation Scenic: _____

Natural Resources: _____

VALUING INITIATED BY:

Staff Review _____

General Public _____

Supervisor _____

Open Space/ Parks District _____

Other _____

OPEN SPACE VALUE LEVEL AND POINT RANKING

	Max. Pts.	Pts. Earned
High:	5	_____
Moderate:	4	_____
Low:	4	_____

PRIORITY FOR PRESERVATION POINT RANKINGS

Point Total: _____
(Max. pts. = 4)

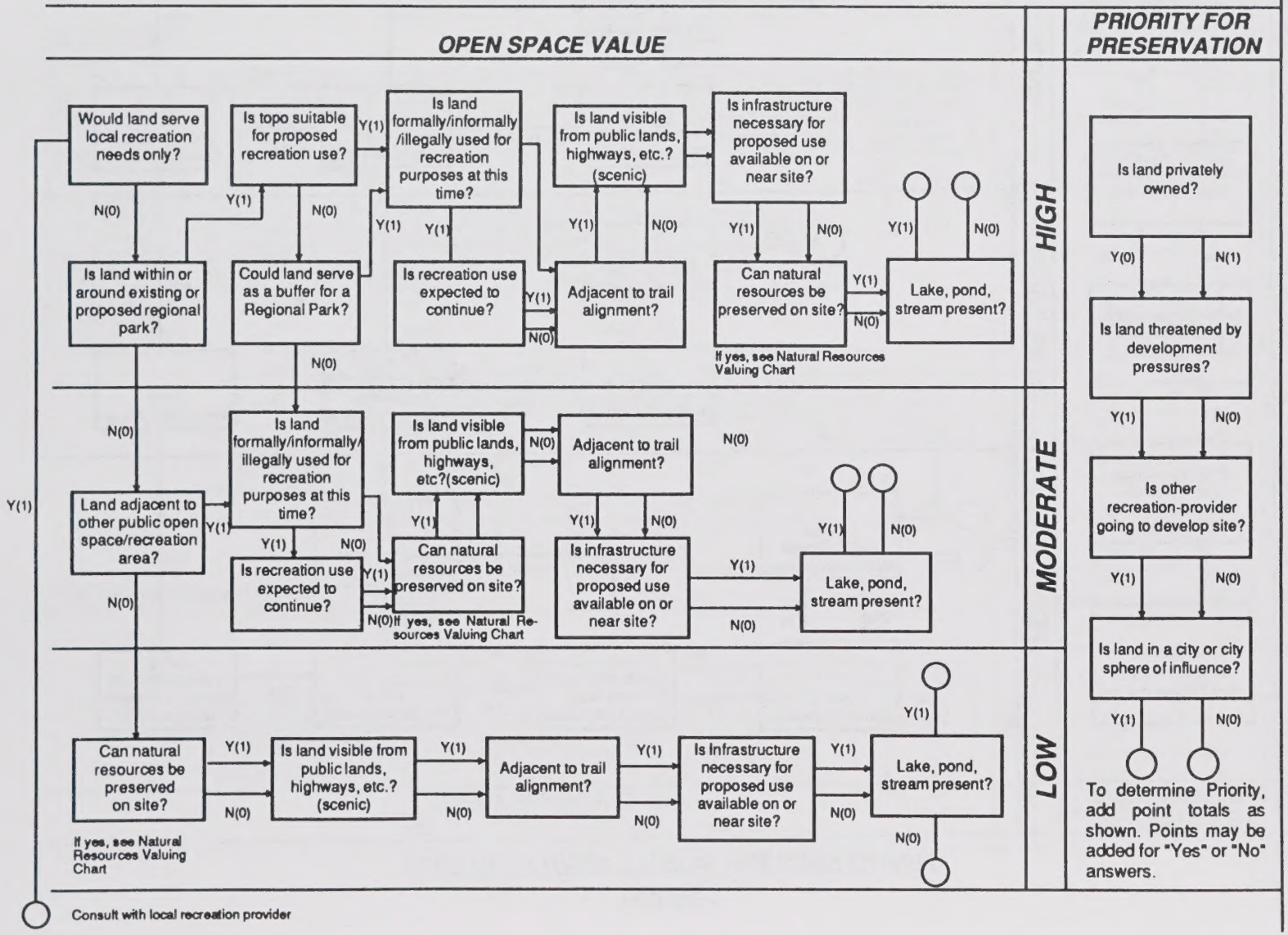
Evaluators Name:

_____

Date Evaluated: _____

Date Project Submitted: _____

FIGURE 3
RECREATIONAL LANDS VALUING CHART



Project File No: _____

COUNTY REGION

Valley _____

Mountain _____

Desert _____

Property Owner Name/ Address

_____

_____

_____

Acreage _____

OTHER VALUING CHARTS COMPLETED FOR SAME PROPERTY

Agricultural Preservation: _____

Trails: _____

Recreation Scenic: _____

Natural Resources: _____

VALUING INITIATED BY:

Staff Review _____

General Public _____

Supervisor _____

Open Space/ Parks District _____

Other _____

OPEN SPACE VALUE LEVEL AND POINT RANKING

	Max. Pts.	Pts. Earned
High:	9	_____
Moderate:	8	_____
Low:	5	_____

PRIORITY FOR PRESERVATION POINT RANKINGS

Point Total: _____
(Max. pts. = 4)

Evaluators Name:

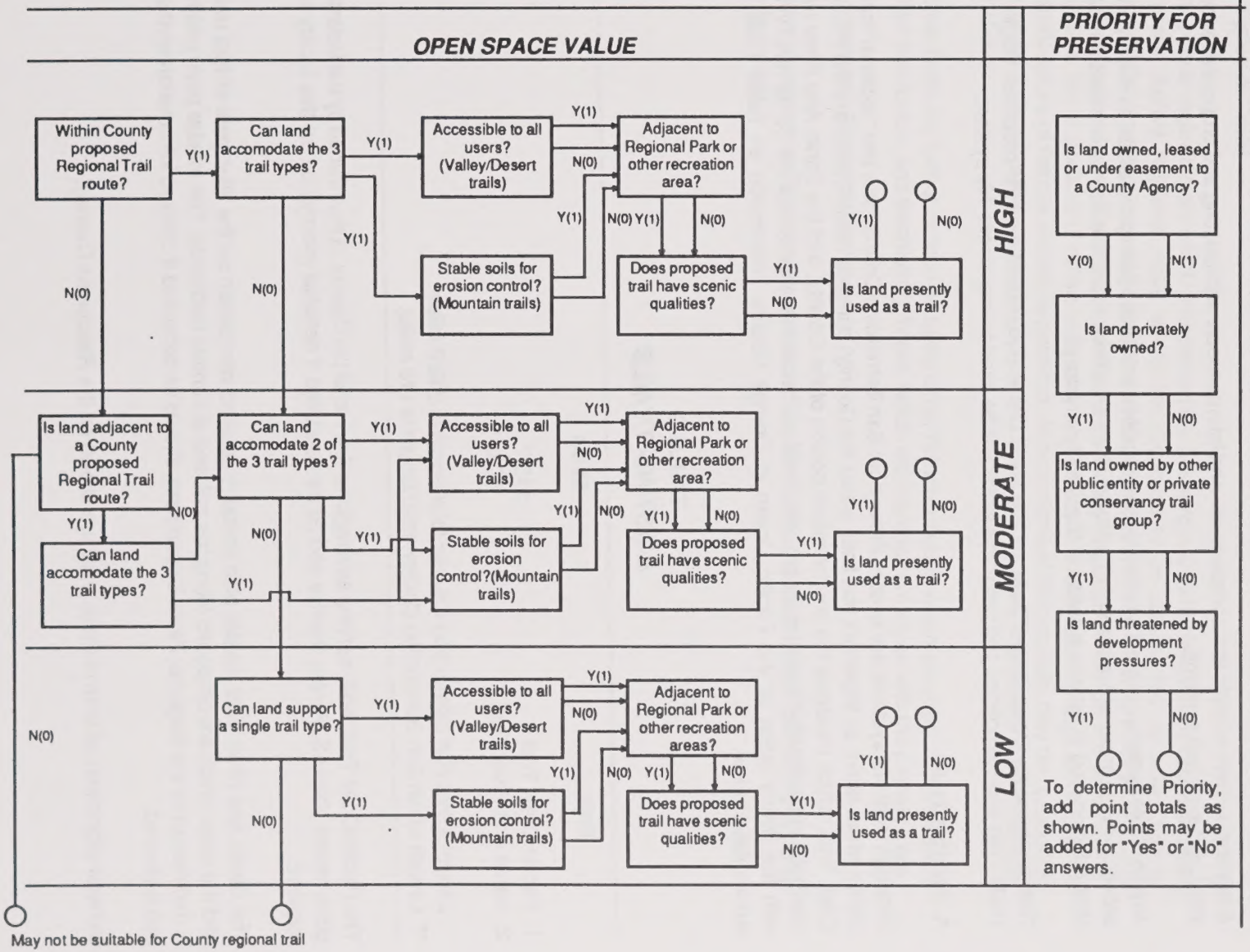
_____

Date Evaluated: _____

Date Project Submitted: _____

Adopted July 1989
Revised August 14, 1991

FIGURE 4
TRAILS VALUING CHART



Project File No: _____

COUNTY REGION

Valley _____

Mountain _____

Desert _____

Property Owner Name/ Address

_____

_____

_____

Acreage _____

OTHER VALUING CHARTS COMPLETED FOR SAME PROPERTY

Agricultural Preservation: _____

Trails: _____

Recreation Scenic: _____

Natural Resources: _____

VALUING INITIATED BY:

Staff Review _____

General Public _____

Supervisor _____

Open Space/ Parks District _____

Other _____

OPEN SPACE VALUE LEVEL AND POINT RANKING

	Max. Pts.	Pts. Earned
High:	6	_____
Moderate:	7	_____
Low:	6	_____

PRIORITY FOR PRESERVATION POINT RANKINGS

Point Total: _____
(Max. pts. = 4)

Evaluators Name:

_____

Date Evaluated: _____

Date Project Submitted: _____

SECTION 4. TRAILS

Because they provide public access to open space lands and serve as an active recreational amenity, trails form an important part of the County's overall open space plan. The establishment of a regional trails system is envisioned in the Open Space Goal C-30, which seeks:

A regional system of trails that complements and interconnects with existing and proposed federal, state, and local trail systems.

As part of this system, trails will be used to provide public entry into open space areas, to direct public access to those areas which can safely withstand human activity, to provide alternative transportation opportunities, and to provide a sense of the County's history.

This portion of the Open Space/Trails section of the General Plan describes the proposed Regional Trails Plan and the policies and programs which will be used to implement this system.

A. Existing Trails

Although local trail systems are located throughout San Bernardino County, only two "regional" trails (those which serve as important trail links within the County) currently exist. These are the Pacific Crest Trail, which traverses the southwestern portion of the County, and the Santa Ana River trail (currently in the detailed planning stage), which will connect the headwaters of the Santa Ana River with the river's outlet at the Pacific Ocean in Orange County. Information on these trails is summarized below.

TABLE C
EXISTING TRAILS

Trail	Miles
1. Pacific Crest Trail	113.7*
2. Santa Ana River Trail	50.0**

* *Length within San Bernardino County; total length is 2,620 miles.*
** *Length within San Bernardino County; total length is 110 miles.*

The Pacific Crest Trail, while serving as a regional link within the County, is maintained by the federal government; the U.S. Forest Service should be consulted if detailed information on this facility is required.

The Santa Ana River Trail master plan contains detailed information on the alignment of that trail and the uses which are proposed along the trail and at various trailheads. The master plan, which is maintained by the Regional Parks Department, should be consulted if detailed information on the trail is desired.

General alignments of both of these trails are shown on the Resources Overlay.

B. Planned Trails

The following information relates to the proposed regional trails shown on the Resources Overlay. For more specific information, consult the Open Space Background Appendix.

1. Types of Trails

The plan of regional trails which is shown on the Resources Overlay includes two general types of trails: **Active Regional** trails, which are proposed to be constructed for active use by pedestrians, equestrians, and bicyclists; and **Historic/Desert** trails, which are not proposed to be constructed by the County but identified only through signage or interpretive (educational) facilities. Some portions of active trails may be historic, in which case signage identifying the historic nature of the trail should be provided. All or portions of historic trails may be constructed as active trails by other agencies, such as the State of California, the federal government, or local cities.

Active Trails are further defined as being either **Primary Trails**, which are expected to serve as major trail routes, and **Secondary Trails**, which will link adjacent areas with the primary trails.

2. Proposed Regional Trails

The trails shown in Table D are proposed to be constructed or identified as part of the regional trails system.

TABLE D
PROPOSED REGIONAL TRAILS

Trail Name	Length (Miles)[1]	Uses/Notes
Active Trails		
Baseline Road Trail	**21.1**	***Route:*** This trail follows Baseline Road, beginning at the County line on the west and ending at the Cajon Creek Trail on the east, near Rialto and San Bernardino. ***Uses:*** Multiple uses, including pedestrian, equestrian, and bicycling. Equestrian use may not be appropriate in areas where separation from roadways is not possible. Some portions of trail may be located within Southern Pacific Transit Company right of way. Separate trails for each use if possible. This is a Primary Trail.
Cajon Creek Trail	**20.3**	***Route:*** This trail follows Cajon Creek, beginning north of the community of Devore at the Pacific Crest Trail and extending southward along the creek channel to its terminus at the Santa Ana River. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. Opportunities for wildlife viewing along portions of trail; also, need to keep trail activities separated from sensitive biological areas. This trail passes through undeveloped areas, and may require installation of comfort stations, rest/water stops, and similar amenities. Plan for mountain bike use, due to proximity to national forest. Separate trails for each use if possible. This is a Primary Trail.
Chino Hills Connector	**4.7**	***Route:*** This trail extends from the San Antonio Creek Trail southwest into the Chino Hills State Park. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. Plan for mountain bike use, due to proximity to Chino Hills State Park. Separate trails for each use if possible. This is a Secondary Trail.

TABLE D (Cont'd)
PROPOSED REGIONAL TRAILS

Trail Name	Length (Miles)[1]	Uses/Notes
City Creek Trail	5.6	***Route:*** This follows City Creek, beginning at the creek's terminus at the Santa Ana River and extending northward into the national forest. At the trail's northern terminus, opportunities exist for connection with trails in the national forest. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. Plan for mountain bike use, due to proximity to national forest. This is a Secondary Trail.
Crafton Hills Trail	8.9	***Route:*** This trail circles the proposed Crafton Hills open space area at an elevation of approximately 2,400 feet, providing connections to the Live Oak Canyon Trail and the Mill Creek Trail. ***Uses:*** Routed around perimeter of proposed Crafton Hills Open Space area. Multiple uses, including hiking, equestrian, and mountain bicycling. May require "low intensity" standards due to steep terrain in some areas. This is a Secondary Trail.
Cucamonga Canyon Trail		***Route:*** This trail generally follows the West Cucamonga Truck Trail and Barrett Stoddard Truck Trail west from the Cucamonga Creek Trail and north to San Antonio Canyon, just below Mt. Baldy Village. ***Uses:*** Multiple uses including hiking, equestrian, and mountain bicycling. This is a Secondary Trail.
Cucamonga Creek Trail	29.8	***Route:*** This trail generally follows the route of Cucamonga Creek, providing a connection between the Rancho Cucamonga area and the Santa Ana River. The northern reach of this trail extends through

TABLE D (Cont'd)
PROPOSED REGIONAL TRAILS

Trail Name	Length (Miles)[1]	Uses/Notes
		the national forest north of Rancho Cucamonga and ultimately connects with the Lytle Creek Trail. In its southern reach, this trail will be constructed primarily within land controlled by the County Flood Control District. ***Uses:*** Multiple uses, including hiking, equestrian, and mountain bicycling. Due to route through urban areas, potential for use as alternative commuting route. This is a Primary Trail.
Day Creek Trail	10.0	***Route:*** This trail follows a north-south route along Day Creek, primarily using lands controlled by the County Flood Control District. The northern terminus of this trail is at the Frontline Trail; the southern terminus is the County line, where this trail could link with the Riverside County trail system. ***Uses:*** Multiple uses, including hiking, equestrian, and mountain bicycling. Due to route through urban areas, potential for use as alternative commuting route. This is a Primary Trail.
Deer Creek Trail	6.4	***Route:*** This trail generally follows the route of Deer Creek, connecting the Day Creek Trail with Cucamonga-Guasti Regional Park. ***Uses:*** Multiple uses, including hiking, equestrian, and mountain bicycling. Due to route through urban areas, potential for use as alternative commuting route. This is a Secondary Trail.
Demens Creek Trail		***Route:*** This trail generally follows Demens Creek ***Uses:***
Devils Canyon Connector	7.8	***Route:*** This trail provides a connection between the Rialto Trail and the Devils Canyon Recreation Area. Its route follows Casa Grande Drive, crosses the Cajon

TABLE D (Cont'd)
PROPOSED REGIONAL TRAILS

TrailName	Length (Miles)[1]	Uses/Notes
		Creek Trail north of Muscoy, and then continues to the Recreation Area and the National Forest along the general alignment of the California Aqueduct. ***Uses:*** Multiple uses, including hiking, equestrian, bicycling, and mountain bicycling as terrain permits. May require "low intensity" standards due to steep terrain. This is a Secondary Trail.
Edison/Schaefer Connector	**10.4**	***Route:*** This trail extends eastward from the San Antonio Creek Trail, following Edison Avenue east to Euclid Avenue, then north to Schaefer Avenue, east to the county line, north to Riverside Avenue, east to Etiwanda, north to the approximate alignment of Philadelphia, and then east to its terminus at the Jurupa Trail. ***Uses:*** Multiple uses, including hiking, equestrian, bicycling and mountain bicycling. Due to route through urban areas, potential for use as alternative commuting route. This is a Secondary Trail.
Frontline Trail	**15.0**	***Route:*** This trail generally follows the base of the mountains north of the communities of Upland, Rancho Cucamonga, and Fontana. This trail provides an east-west connection between the San Antonio Creek Trail and the Frontline Connector Trail. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. Opportunities for wildlife viewing along portions of trail; also, need to keep trail activities separated from sensitive biological areas. This trail passes through undeveloped areas, and may require installation of comfort stations, rest/water stops, and similar amenities. Plan for mountain bike use, due to proximity to national forest. Separate trails for each use if possible. This is a Primary Trail.

TABLE D (Cont'd)
PROPOSED REGIONAL TRAILS

Trail Name	Length (Miles)[1]	Uses/Notes
Frontline Connector	**4.4**	***Route:*** This trail connects the eastern terminus of the Frontline Trail with the Lytle Creek Trail and western terminus of the Greenbelt Trail. The alignment of this trail generally follows Sierra Avenue and Devore Road. ***Uses:*** Multiple uses, including hiking, equestrian, and mountain bicycling. This is a Secondary Trail.
Greenbelt Trail	**21.9**	***Route:*** This trail generally follows the base of the mountains and foothills east of the Cajon Pass, from Cajon Creek to the Santa Ana River Trail. A detailed routing plan for this trail has been developed by the City of San Bernardino in coordination with civilian volunteers which should be considered by the County. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. Opportunities for wildlife viewing along portions of trail; also, need to keep trail activities separated from sensitive biological areas. This trail passes through undeveloped areas, and may require installation of comfort stations, rest/water stops, and similar amenities. Plan for mountain bike use, due to proximity to national forest. Separate trails for each use if possible. This is a Primary Trail.
Jurupa Hills Trail	**7.5**	***Route:*** This trail circles and traverses the Jurupa Hills area in the southern portion of Fontana, and includes two links to the Santa Ana River Trail in Riverside County. Since this trail lies within two counties, effective coordination between agencies will be essential. ***Uses:*** Multiple uses, including hiking, equestrian, and mountain bicycling. May require "low intensity" standards due to steep terrain in some areas. Potential for connection to regional park in Riverside County; routing should be coordinated with County of Riverside. This is a Secondary Trail.

TABLE D (Cont'd)
PROPOSED REGIONAL TRAILS

Trail Name	Length (Miles)[1]	Uses/Notes
Live Oak Canyon Trail	5.8	***Route:*** This trail follows the route of Wilson Creek from Yucaipa Regional Park to the San Timoteo Creek Trail. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. Opportunities for wildlife viewing along portions of trail; also, need to keep trail activities separated from sensitive biological areas. This trail passes through undeveloped/rural areas, and may require installation of comfort stations, rest/water stops, and similar amenities. This is a Secondary Trail.
Lytle Creek Trail	12.9	***Route:*** This trail follows the route of Lytle Creek from the Pacific Crest Trail to a connection with the Frontline Connector and Devils Canyon Connector trails north of Fontana. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling or mountain bicycling, depending on terrain. Opportunities for wildlife viewing along portions of trail; also, need to keep trail activities separated from sensitive biological areas. This trail passes through undeveloped areas, and may require installation of comfort stations, rest/water stops, and similar amenities. Plan for mountain bike use, due to proximity to national forest. Separate trails for each use if possible. This is a Secondary Trail.
Mid-City Connector	7.3	***Route:*** This trail connects the Santa Ana River Trail and San Timoteo Creek Trail through San Bernardino, extending northward to the Greenbelt Trail and the National Forest. ***Uses:*** Multiple uses, including hiking, equestrian, and mountain bicycling. Due to route through urban areas, potential for use as alternative commuting route. This is a Secondary Trail.

TABLE D (Cont'd)
PROPOSED REGIONAL TRAILS

Trail Name	Length (Miles)[1]	Uses/Notes
Mill Creek Trail	**13.5**	***Route:*** This trail follows the route of Mill Creek, linking the Santa Ana River Trail near Angelus Oaks with the Santa Ana River Trail near Mentone and Highland. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling or mountain bicycling, depending on terrain. Opportunities for wildlife viewing along portions of trail; also, need to keep trail activities separated from sensitive biological areas. This trail passes through undeveloped areas, and may require installation of comfort stations, rest/water stops, and similar amenities. Plan for mountain bike use, due to proximity to national forest. Separate trails for each use if possible.
Reche Canyon Trail	**3.8**	***Route:*** This trail follows the general route of Reche Canyon Road southward from the Santa Ana River Trail into Riverside County. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling or mountain bicycling, depending on terrain. May require "low intensity" standards in some areas due to steep terrain. This is a Secondary Trail.
Rialto Trail	**13.3**	***Route:*** From its southerly terminus at the Santa Ana River Trail, the Rialto Trail extends northward along Agua Mansa Road, then travels through Rialto adjacent to Cactus Avenue. The trail follows Highland Avenue west to Locust, then north to Casa Grande Drive and west to Sierra Avenue. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. Separate trails for each use if possible. This is a Secondary Trail.
San Antonio Creek Trail	**15.9**	***Route:*** This trail follows the route of flood control facilities along San Antonio Creek from the San Antonio Heights area north of Upland to the Santa Ana River Trail on the south. Since this trail lies in San Ber-

TABLE D (Cont'd)
PROPOSED REGIONAL TRAILS

Trail Name	Length (Miles)[1]	Uses/Notes
		nardino and Los Angeles counties, effective coordination between agencies will be necessary. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling or mountain bicycling, depending on terrain. Due to route through urban areas, potential for use as alternative commuting route. This is a Primary Trail.
San Timoteo Creek Trail	**8.9**	***Route:*** This trail generally follows the route of San Timoteo Creek, linking the Live Oak Canyon Trail with the Santa Ana River via a route which travels through a largely undeveloped area south of Redlands and Loma Linda. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. Opportunities for wildlife viewing along portions of trail; also, need to keep trail activities separated from sensitive biological areas. This trail passes through undeveloped areas, and may require installation of comfort stations, rest/water stops, and similar amenities. Coordinate routing with County of Riverside. This is a Secondary Trail.
Santa Ana River Trail	**50.0**	***Route:*** This trail follows the Santa Ana River, from its headwaters near Heart Bar to the County line. For detailed information on this trail, refer to the master plan completed by the Regional Parks Department. ***Uses:*** Multiple uses, including hiking, equestrian, and bicycling. (See detailed plans in Santa Ana River Corridor Trail System Master Plan for further information.) This is a Primary Trail.

TABLE D (Cont'd)
PROPOSED REGIONAL TRAILS

Trail Name	Length (Miles)[1]	Uses/Notes
Historic/Desert Trails[2]		
Colorado River Trail	**85+/-**	Proposed State trail along the Colorado River.
Death Valley Trail	**75+/-**	Proposed State trail from Death Valley National Monument southwest to Los Angeles County, connecting with the proposed Owens Valley State trail.
Mojave Indian Trail	**100+/-**	Historic trail from the Colorado River near Needles, traveling northwest to Piute Spring, west to Mail Springs, and southwest to Afton Canyon, Yermo, and the Mojave River. Ultimate connection with the Old Spanish Santa Fe and Mormon Trail.
Old Government Military		Historic trail from the site of Fort Mojave on the Colorado River west to Fort Piute, Government Holes, Mail Springs, Fort Soda, Afton Canyon, and Yermo. Periodic connections with Mojave Indian Trail; also linked with Colorado River Trail and Old Spanish Santa Fe and Mormon Trail.
Old Spanish Santa Fe and Morman Trail	**160+/-**	Historic trail connecting Summit Valley via the Mojave River with the cities of Victoriville, Hesperia, and Barstow. Ultimate connection to Inyo County.

1. Note: All mileage figures are approximate and subject to change based on the completion of detailed route studies.

2. Note: Historic Trails are not proposed to be developed by the County but identified only through signage or interpretive (educational facilities) with low usage. Desert Trails are to be constructed by the State.

C. Trails Goals

The following are the Trails-related goals of the County of San Bernardino.

C-30 A regional system of trails that complements and interconnects with existing and proposed federal, state, and local trail systems.

C-31 Provide regional open space for passive and active open space recreation activities (solitude, quiet, hiking, and other low intensity uses).

C-32 Develop and maintain trailhead access points for all regional trails with facilities appropriate to uses on the trail (hiking, equestrian use, bicycling, and mountain bicycling).

C-33 Assure dedication of pedestrian and equestrian trails, bikeways, and visual access to major scenic features.

D. Trails Policies/Actions

The following policies and action items relate to the County's Trails Goals.

OR-7 Because the County desires to provide a regional trails system, and because achievement of this trail system will require the coordinated implementation of actions related to many County and private actions, subject to funding availability the County shall:

a. Provide equestrian, bicycling, and pedestrian staging areas consistent with the master plan of Regional Trails shown on the Resources Overlay and the trail route and use descriptions shown in Table D of this Open Space Element.

b. Provide a regional trail system, plus rest areas, to provide continuous interconnecting trails which serve major populated areas of the County and existing and proposed recreation facilities through the regional trail system. The purpose of the County regional trails system shall be to provide major backbone linkages to which community trails might connect. The provision and management of community and local trails will not be the responsibility of the regional trail system.

c. Adopt and implement the trail standards shown in this section. The California Highway Design Manual for Bikeway Planning and Design shall be adopted by the County.

d. Locate trail routes to highlight the County's recreational and educational experiences, including natural, scenic, cultural and historic features.

e. Work with local, state and federal agencies, interest groups and private landowners in an effort to promote an interconnecting regional trail system; and to secure trail access through purchase, easements or by other means.

f. Use lands already in public ownership or proposed for public acquisition, such as rights of way for flood control channels, abandoned railroad lines and fire control roads for trails wherever possible, in preference to private property.

g. Where possible, locate trail easements within County-required easements for private roads.

h. Encourage the dedication or offers of dedication of trail easements where appropriate for establishing a planned trails system alignment, or where an established trail is jeopardized by impending development or subdivision activity.

i. Do not develop or open trails to public use until a public agency or private organization agrees to accept responsibility for their maintenance.

j. Monitor all dedicated public trails and/or easements on a continuing basis and maintain an up-to-date map of all existing and proposed dedicated public trail easements on the Resources Overlay. Existing trail easements or alignments shall be mapped in their correct positions; proposed alignments shall be mapped in general locations. The Resources Overlay shall be reviewed during consideration of applications for permits or development approvals to ensure that new development does not result in loss of existing or potential public use of dedicated easements.

k. Provide bicycle and pedestrian trails along major home-work and other travel routes, where appropriate.

l. Where feasible, link local equestrian trail and hiking paths with other regional trails or routes.

m. Use active and abandoned road, utility, and railroad rights-of-way for nonvehicular circulation in all new development when found feasible.

n. Require proposed development adjacent to trail systems to dedicate land for trail-head access points. Existing right-of-way and surplus public properties should be utilized for these staging areas whenever possible.

OR-8 Because the countywide trail system will require the application of design standards to ensure the safety of trail users and promote enjoyment of the trails system, the County shall apply the following Trail Use and Design Policies. These standards are intended to serve as a general guide, and may at times be superseded by standards of managing agencies other than San Bernardino County (e.g., U.S. Forest Service standards). Standards may vary depending on use and operation of the trail; more detailed standards for specific trails may be developed at the time specific siting and planning for a trail link is completed.

a. Establish the trails system for pedestrian, equestrian and bicycling uses only; all motorized vehicles shall be prohibited from using the trail system.

b. Incorporate where feasible and where the safety and security of all users can be protected, all compatible multiple uses on a single trail. Where a single trail is not feasible, the trail system shall provide alternate or parallel routes so that the trail segment can safely support a variety of uses.

c. Access should be provided to the maximum extent feasible to trail users of all abilities and all ages, including the physically and visually disabled.

d. Where possible, design new trail development to reduce visitor dependence on the automobile. Where feasible, convenient and efficient transit should be provided to enable trail users to gain access to the trail system.

e. Trails along river and stream corridors shall be sited and designed to avoid impacts to the riparian vegetation, wildlife, and water quality. Recommended measures might include control of run-off and erosion, contouring and siting of trails to conform to the natural topography, and separating and screening trails from sensitive areas.

f. Development of trails in natural areas shall be compatible with the character of the natural environment and shall be designed to ensure public safety (including fire protection), protect natural resources (including rare and endangered species), and minimize land use conflicts. Due to the fragility of the desert ecosystems special protective actions shall be required where necessary when locating trails in these areas.

g. Consider the opportunities and constraints of other current land uses including, but not limited to, agricultural and residential land uses, military facilities, sewage treatment plants, landfills, and areas of heavy industry in trail alignment, design, and uses.

h. Include necessary support facilities, in the trail system, using existing parking lots and other staging areas where possible.

i. Locate trailheads to be apparent to the public and situated to facilitate supervision.

j. Begin acquisition of trail easements or rights of way after a trail route plan has been adopted, unless a trail segment is to be acquired through dedication in conjunction with development activity or acts of philanthropy which occur prior to adoption of a route plan.

k. Encourage the use of volunteers and volunteer organizations to assist in development, operations, maintenance, and education activities related to trails.

l. Provide for two general levels of trails use:

Low Use and Natural Area standards shall apply to sections of the trail where terrain, remoteness, expected low usage, easement or other restrictions make a larger, multiple trail infeasible.

Urban (Maximum Accessibility) standards define a relatively flat, wide trail for use where little physical challenge is required, and where wheelchair access can be accomplished. The grades are low, and the tread is wide and compacted or surfaced.

m. Where feasible, trail crossings shall be separated from roadways. Where separated crossings are not feasible, trail crossings shall be designed to occur at controlled intersections.

OR-9 Because adequate physical dimensions for trails are necessary to protect the health and safety of trail users, then the County shall apply the following trail standards, except where superseded by local standards or in situations where site-specific criteria are developed.

In Low Use and Natural areas, the County may consider the use of trail construction standards as defined in Standard Specifications for Construction of Trails, June 1984, published by the U.S. Forest Service.

a.The following Trail Standards shall apply throughout the County, except where superseded by location- or trail-specific considerations. "Maximum Accessibility" standards shall be mandatory in urban areas and desired (but not required) elsewhere.

Urban Standards (Maximum Accessibility)

Item	Bicycle + Pedestrian[i]	Bicycle Only[i]	Hiking Only	Equestrian Only[iv]
Min. Width (one way)	10'	5'	5'	8'
Min. Width (two-way)	12'	8-10'	8-10'	10'
Surface	hardened, e.g. asphalt[ii]	hardened, e.g. asphalt	hardened	hard-packed, no paving
Shoulder	2' min.	2' min.	2' min.	2' min.
Vertical Clearance	12'	10'	10'	12'
Cross Slope	2% max.	2% max.	2% max.	2% max
Max. Grade	5%	5%	5%	max. limit is erosion control

Low Use and Natural Area Standards

Item	Bicycle + Hiking + Equestrian[iii]	Hiking Only	Mountain Bike Only (foothill & mtn. areas)	Equestrian Only
Min. Width (one way)	6-8'	2'	2'	6'
Min. Width (two-way)	8-10'	2'	4'	8'
Surface	firm all-weather & unobstructed	minimize erosion	minimize erosion	minimize erosion
Shoulder	2' min.	2' min.	2' min.	2' min.
Vert. Clearance	10'	8'	8'	12'
Cross Slope	3% max.	3% max.	3% max.	3% max.
Max. Grade	5%; rest & turning areas every 200 ft. min.	max. limit is erosion control	max. limit is erosion control	max. limit is erosion control

i. Standards meet Caltrans Class I Bikeway standards.

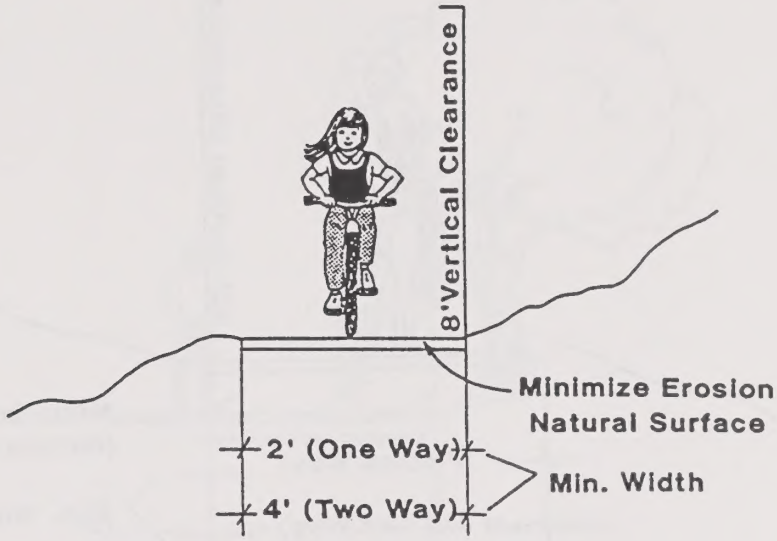
ii. Where equestrian uses occur, an appropriate trail material, such as decomposed granite, should be provided on the equestrian portion of the trail only; the remainder of the trail should use materials appropriate to its intended use.

iii. Multiple use trails with both bicyclists and equestrians should be no narrower than 6 feet. A combined use trail with hiking and bicycling only should be no narrower than 4 feet.

iv. A maximum of 20% vertical grade or as needed for erosion control, whichever is less. This can be exceeded for short distances (no more than 200').

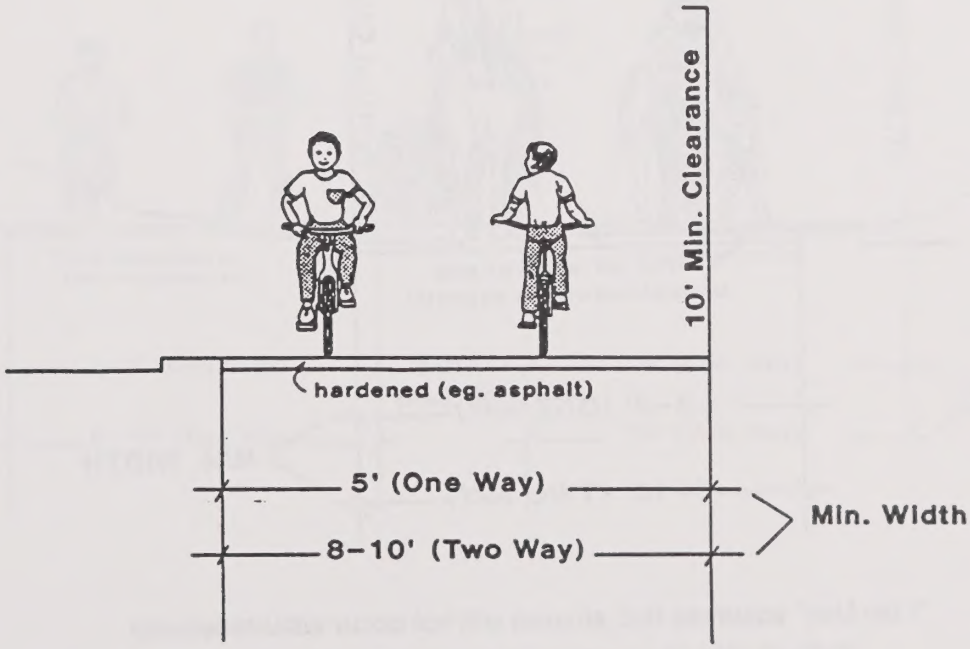
LOW USE AND NATURAL AREAS

Mountain Bike Only



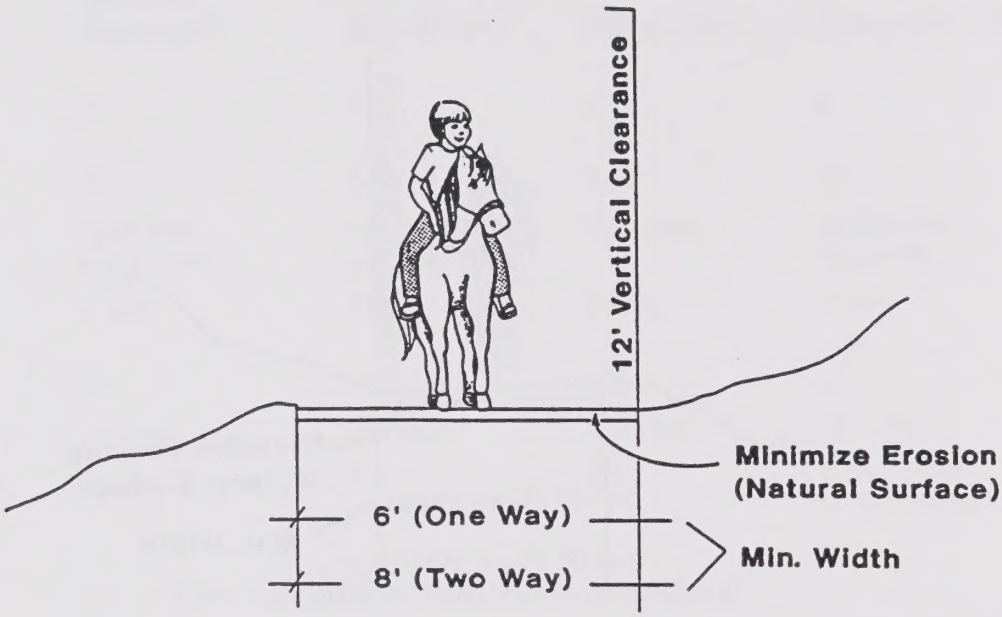
URBAN

Bicycle Only

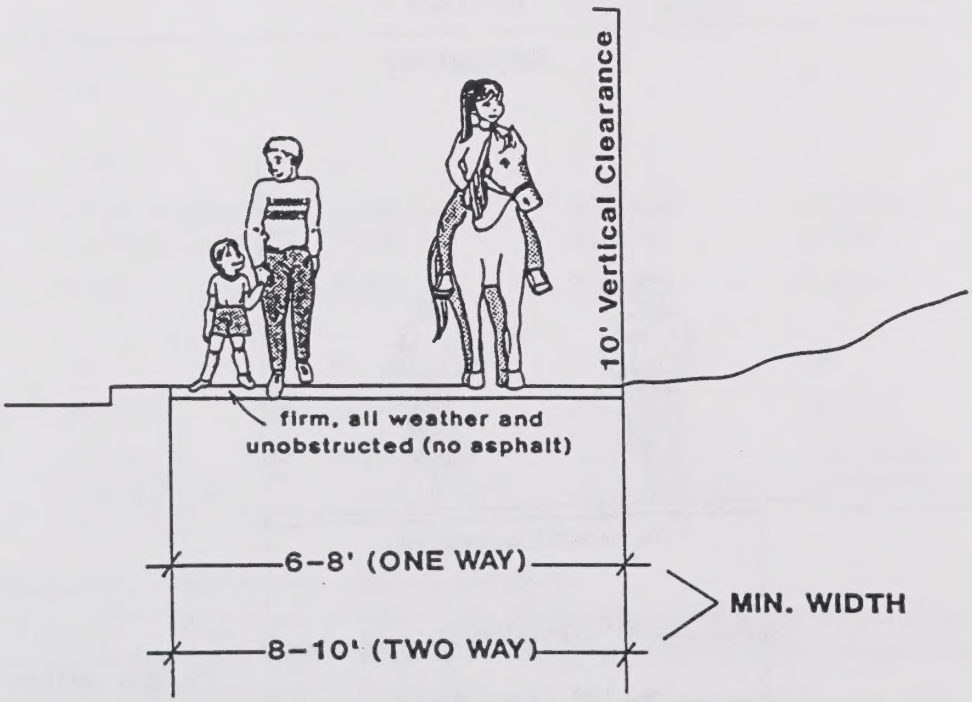


LOW USE AND NATURAL AREAS

Equestrian Only



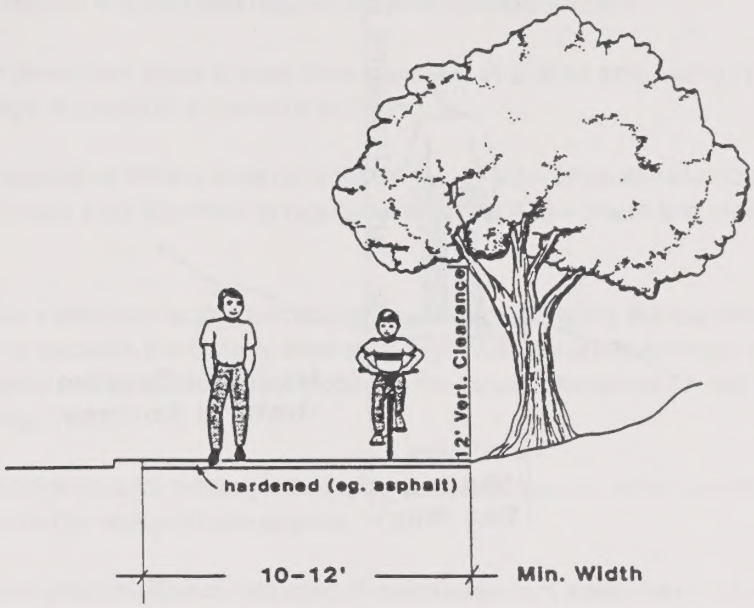
Bicycle, Hiking and Equestrian



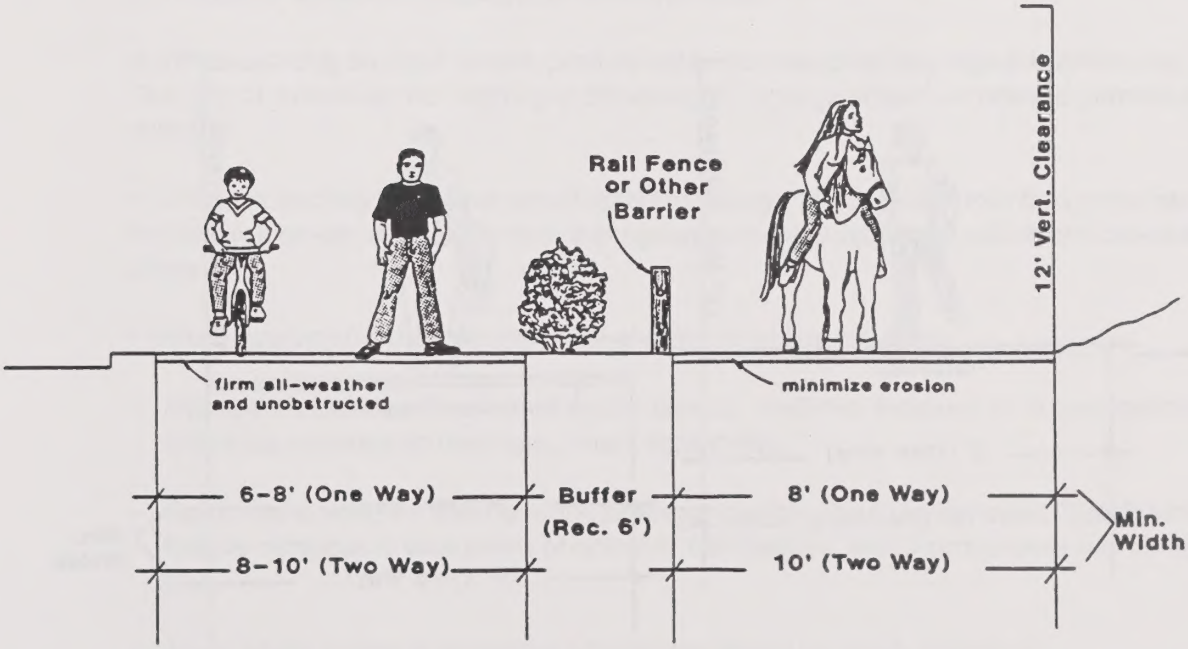
"Low Use" assumes that all uses will not occur simultaneously
(pullouts may be necessary in natural areas of high use)

URBAN

Pedestrian and Bicycle

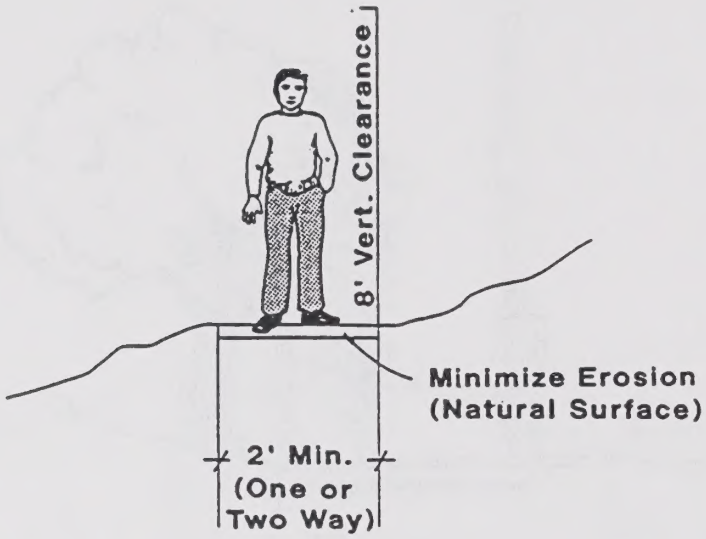


Bicycle, Hiking and Equestrian Combined in One Easement



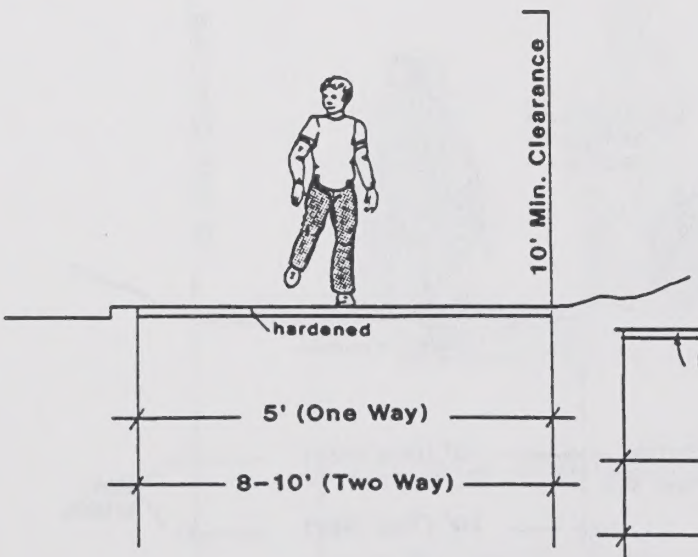
LOW USE AND NATURAL AREAS

Hiking Only

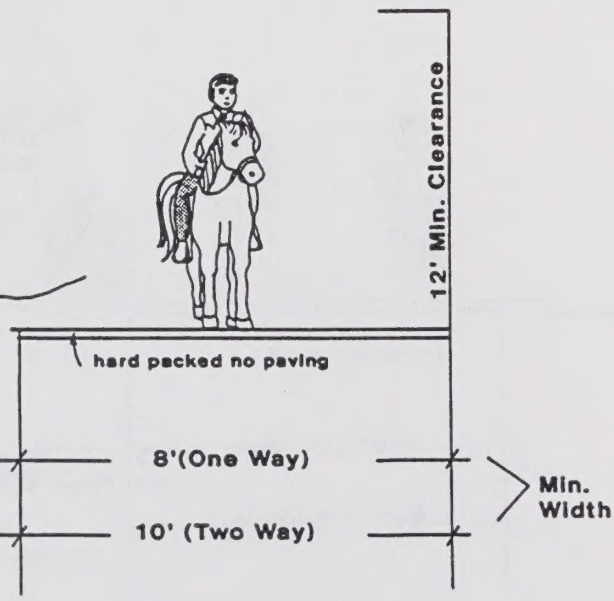


URBAN

Hiking Only



Equestrian Only



b. Trail right-of-way of 50 to 100 feet is most desirable. The right-of-way should be wide enough for safe passage of users, for signing, fencing, and, where appropriate, landscaping. The trail right-of-way should be no narrower than 20 feet for single or double use, and no narrower than 40 feet for three uses to allow separation of users.

c. Trails in developed areas should have a setback of 5' from an existing or future curb face and the edge of paved or unpaved shoulders.

d. Narrow equestrian/hiking trails (less than 6 feet wide) with steep side slopes (greater than 30%) must have passing areas at regular intervals to allow hikers and other equestrians to pass.

OR-10 Because the safety and enjoyment of trail users is enhanced by the identification of key trail features and hazards, the County shall seek to provide adequate signage along all portions of the regional trail system which are open to the public. Standards for trail signage include the following:

a. A consistent style for signage, including a unified logo or other identification, shall be developed for the regional trails system.

b. Signage on trails shall be constructed of vandal-resistant materials which are either natural or replicate natural materials. All signage shall be unobtrusive, consistent with the need to be clearly visible and identifiable.

c. The use of symbols on signage shall be encouraged.

d. Where wording on signs is used, positive rather than negative language should be used. The use of extensive "No" signing is discouraged; signage should emphasize permitted activities.

e. The number of signs on a trail should reflect trail usage. More signage may be appropriate in urban or high-use areas; in general, less signage should be installed in natural and low-use areas.

f. Where appropriate, the following types of signs should be provided:

- Signage should identify points of public access. Trailhead locations or access points should be identified on roadways, where appropriate.
- Destinations along the trail route, and distances to each, should be identified. This should include distances to vista points or other key trail features, and to connections with other trails.
- Areas where access is hazardous or restricted should be clearly identified.
- Areas in which dogs or other animals are not allowed should be clearly marked.
- Private property adjacent to trails should be clearly identified.

- All closed trails should be clearly marked.
- Areas in which restoration of trails or habitat is in progress should be clearly marked.
- Signage should be provided for trails which are dedicated to or sponsored by an organization or individual.
- Vista points, pullouts, or rest stops should be clearly identified.
- Signage should be provided to inform the public of trail use and etiquette.
- On paved trails and in other appropriate locations, speed limits for bicyclists and equestrians should be clearly marked.

OR-11 Because the County desires to make the regional trail system accessible to a diversity of users, and because accommodating different user types requires the application of specific policies to avoid conflicts and increase user safety, the County shall apply the following policies.

a. "Multiple uses" on County regional trails in urban areas may include bicycling and hiking. In natural or low-use areas, multiple use may include any combination of bicycling, hiking, or equestrian uses.

b. Where possible, a separate bicycle trail is desirable parallel to a hiking/equestrian trail. Separate dual, and if necessary, triple trails are recommended where there is heavy trail use and where several feeder trails join the regional trail system. The Maximum Accessibility standards apply only in urban areas.

c. A six (6) foot buffer should be maintained wherever possible between bike trails and equestrian/hiking trails.

d. A Multiple-Use trail where bicycle use is permitted should maintain a 200 foot line-of-sight throughout the length of the trail. The line of sight should allow sufficient time for the bicyclist to slow down, and if necessary, to come to a complete stop to allow other users to pass. If additional line of sight length is required in some areas, the 200-foot standard may be superseded.

e. Bicycles shall not be permitted on hiking and equestrian trails for safety reasons, except where a separate alignment is not possible. If bicyclists must share a trail with other uses, cyclists must adhere to the following requirements:

- Alert hikers and equestrians of their presence (particularly when approaching from behind)
- Travel no faster than 15 mph, unless conditions warrant reduced speed
- Slow to 5 mph when passing
- If necessary, bicyclists should dismount and wait for equestrians to pass or signal them through.

f. The following hierarchy of users shall be followed: Bicyclists must yield right-of-way to all other users. Runners must yield to hikers and equestrians. Hikers must yield to equestrians.

OR-12 Because the safety of the trail system will be enhanced through the application of specific operational guidelines, the County shall:

a. Accompany the trail design standards with user education. All trail users should be informed of the trail system's trail etiquette requirements through trailhead signs, brochures and by other means.

b. Temporary Closures - Reserve the right to temporarily close trails to certain uses for the following reasons: When hazardous conditions exist (e.g. floods, landslides), or when trail areas are soft or wet (and therefore subject to damage) due to rains. Either of these conditions (or others) may require that portions of trails be closed for extended periods of time. Notice of closures shall be given through signage, media outlets, and other appropriate or available means.

c. Seek to promote adherence to the following code of off-road bicycling responsibility, as developed by the International Mountain Bicycling Association:

"**Ride on Open Trails Only** Respect trail closures, don't trespass, obtain authority as needed. Your riding example will determine what trails remain open to cyclists.

Control Your Bicycle Inattention for even a second can cause a disaster. Excessive speed maims and threatens people--there is no excuse for it.

Always Yield Trail Make your approach known with a friendly greeting. Show your respect when passing others by slowing to a walk or even stopping. Anticipate that other trail users may be around corners.

Never Spook Animals All animals are startled by an unannounced approach, a sudden movement or a loud noise. Give animals extra room and time to adjust to you. In passing, use special care and follow the directions of equestrians. Leave gates as you found them, or as marked.

Leave No Trace Practice low-impact cycling. Even on open trails, you shouldn't ride under conditions where you will leave evidence of your passing--such as shortly after a rain. Stay on the trail and don't create any new ones.

Plan Ahead Be self-sufficient at all times, keep your machine in good repair and carry necessary supplies for changes in weather or other conditions."

OR-13 Because the establishment of an educational program is important to protect the health and safety of trail users by encouraging proper etiquette and procedures, the County shall implement the following actions.

a. Establish an education program to communicate to the community an understanding of the trail system's goals and objectives and to convey aspects of trail use. Education in trail

use etiquette and low impact use is a key measure towards the reduction of negative trail use impacts.

b. Establish an education program to acquaint potential trail users with safety considerations, especially for bicycle routes, and on the rules and regulations which apply when using specific trail segments. The primary purpose of this program will be to avoid threats to public safety and minimize accidents.

OR-14 Because proper operation of the regional trails system will rely upon the establishment of a proper management and monitoring program for trail maintenance and use, the County Regional Parks Department shall pursue the following actions.

a. Develop a management program to monitor trails throughout the trails system. This program should concern itself with delegating management responsibilities to appropriate organizations/agencies for trail segments to ensure that those portions are adequately supervised and maintained.

b. Monitor public use of the trail system on a regular basis, so that as changes in patterns and levels of trail use are reported, priorities for new trail development and maintenance shall be adjusted accordingly.

c. Vigorously enforce trail regulations as a means of controlling trail use, and ensure that regulations in different trail segments within various jurisdictions do not conflict.

d. Develop a program to enlist volunteers and volunteer organizations in trail development, operations, and maintenance, and education activities related to trails.

SECTION 5. PRESERVATION OF NATURAL RESOURCES

Open space for the protection of natural resources encompasses a variety of areas which are required to maintain biological diversity, to protect significant natural features, and to ensure that future generations will have access to a quality "natural" experience.

The County recognizes that natural areas in and adjacent to the urbanizing portions of the County are today under substantial pressure. As urbanization of the Valley, Mountain, and Desert regions continues, the loss of areas which are capable of supporting both common and endangered plant and animal species is accelerating. No specific figures are available, but the consensus of experts in wildlife biology is that, in many cases, the last vestiges of natural habitat which existed prior to the settlement of the County are either gone or in danger of disappearing.

To address these issues, this section of the Open Space Element provides a guide to information on the critical plant and animal species found in the County, as well as on a variety of other natural resources. This section of the Open Space Element references policies in support of natural resource preservation found elsewhere in the General Plan, and contains specific Open Space policies related to this issue. San Bernardino is an inland County and, as such, does not have coastal beaches, bays or estuaries which require special policies or action programs.

As part of an overall strategy of improving the quality of natural resources within the County, this Open Space Element also contains information and policies related to the establishment of natural open space in urban areas, providing access to open space for the many County residents who live in highly urbanized environments.

A. Need for Habitat Preservation in San Bernardino County

The need to preserve wildlife habitat, reflected in the inclusion of this Open Space Element in the General Plan, is well documented. As development of the County has taken place (first for agriculture and more recently for housing and other types of development), areas available for wildlife have significantly decreased, particularly in the Valley areas.

Loss of habitat has not been limited to the Valley, however. The San Bernardino mountains are relatively heavily urbanized, and wildlife has been placed in increasing conflict with human settlements in many mountain areas. An article in the Los Angeles Times (Sunday, Dec. 10, 1989) called attention to the result of development on one species in San Bernardino County:
"In Big Bear Valley, one of two existing colonies of an endangered fish lives a perilous existence in a small pond choked with weeds and garbage. The one-inch, gray and white fish--the unarmored, three-spined stickleback--thrived in a nearby spring-fed stream until it dried up three years ago, a victim of water diversions and over-pumping of wells by the ever-growing Big Bear population. Now the stickleback depends on a one-inch pipe that fills its pond from municipal supplies, a lifesaver arranged by concerned Big Bear residents."If the pipe breaks, that could be it for the stickleback," said U.S. Forest Service biologist Steve Loe."

The experience of species such as the three-spined stickleback is an extreme example of the effects of development on plant and animal species. However, development of the County has resulted in the decline of many plants and animals. Remaining natural areas in all parts of the County have an increasing value for wildlife.

The County General Plan, the U.S. Forest Service's plan for the national forest areas in the San Bernardino mountains, and the Bureau of Land Management's California Desert Conservation Area (CDCA) Plan (1980, as amended) all address the need to protect these remaining areas, which in many cases are either unique or represent the last example of a particular habitat type.

In many areas of the Valley, losses of habitat include not only natural areas, but agricultural areas. While farmland has only limited value for wildlife (since it is subject to frequent chemical application, mowing, tilling, etc., and generally lacks elements of habitat needed for native animals), the reduction in the amount of "unbuilt" land undoubtedly has some effect on wildlife.

B. The Value of Wildlife

Although the local, state, and national commitment to wildlife preservation has been demonstrated through the passing of laws and policies aimed at protecting wildlife, some persons may question the need to protect native species.

Wildlife has value from a number of perspectives. Wildlife managers recognize six general categories of value which can be attached to native species:

Aesthetic Values, which generally reflect the value of plants and animals as attractive parts of the natural environment. The desire of millions of persons to visit the local mountains, which are distinguished by their natural appearance, reflects this value.

Recreational Values, which include hunting, bird watching, nature appreciation (hiking), and photography.

Ecological Values, which reflect the role of native plants and animals in the functioning of the regional ecological system. As part of the food chain, even small insects have an important function, since they support larger animals which in turn support still larger species. The ecological value of native species has been widely publicized in the case of habitats such as the Amazon rain forest. While the extreme diversity of that habitat is not matched in San Bernardino County, the Biological Background Appendix of the General Plan Update notes that, in many areas of the County, not enough is known to make accurate judgments about native plants and animals.

Educational and Scientific Values, which include the value of wildlife as part of the educational process, and its value in the creation of new discoveries. As noted, much remains to be learned about wildlife in the County; the scientific value of its native species remains to be discovered. As part of an expanded awareness of environmental issues, however, the value of native plants and animals in the education of students and the general public is considerable.

Utilitarian Values, which includes the value of native species as a source of diversity which can be exploited for commercial purposes (such as medicinal uses). For instance, the reaction of native species to environmental degradation (a reaction which often occurs faster than that of nonnative species) can be used as an indicator to warn of potential harm to man.

Commercial Values, which includes the value of wildlife when it forms an important part of the local economy. In the mountain communities, for instance, wildlife can be said to have a direct commercial value, attracting tourists who spend money and support local economies.

Wildlife can have negative values. Native animals can cause damage to crops and livestock, and can serve as reservoirs for disease. However, the preparation of this Open Space Element recognizes that the positive values of wildlife far outweigh any negative effects, which can themselves be dealt with on a case-by-case basis.

C. Habitat and Corridor Design

The relatively short history of direct government intervention in the protection of native plants and animals has generally focused primarily on the most threatened species--those in clear danger of extinction. This approach has in some cases focused considerable attention (and funding) on efforts to bring a few individuals of a species back from the brink of extinction (such as in the case of the Trumpeter swan or the California condor).

This strategy is reflected in the County's historic approach to implementation (and that of most other agencies in the County) of the California Environmental Quality Act. In the implementation of CEQA, mitigation (such as preservation of natural areas) is generally required only when a threatened or endangered species is found. The value of some critical habitats is recognized, but in many cases the elimination of natural areas proceeds with little government intervention.

While efforts to protect critically endangered species and habitats are necessary, a shift is currently under way among wildlife managers to expand the focus to include a broad spectrum of native areas. This habitat-based approach recognizes the value of so-called "indicator species"--such as threatened or endangered plants and animals--which provide the first signs of declining wildlife values. However, this emerging approach also recognizes the role of more common native species as parts of the larger ecological system.

Central to this "habitat-based" approach is the establishment of regional habitat systems which, individually or collectively, provide enough natural area to support the common plants and animals which in turn support all others (including threatened or endangered species). This strategy recognizes that native plants and animals require land of sufficient size to support the diversity of the species.

A wildlife management concept related to habitat preservation is that of the "island effect." Simply put, the "island effect" describes the negative effects of placing native species in the midst of a hostile environment. In the case of an island surrounded by water, for instance, biologists have demonstrated that both the number of species and of individual animals declines over time, due to a number of factors, including inbreeding and competition for scarce food supplies.

This same effect occurs when habitat is surrounded by development. In an undeveloped region, for instance, an animal could move freely from one stand of forest to another, subject only to being attacked by a larger animal. And, as animals left one stand of forest, others could enter from nearby stands. The net effect was a constant shifting of animals, and relative stability in the numbers of individuals.

This effect breaks down in areas in which this same stand of forest (or other habitat) is the last remaining example. In this case, if an animal leaves the stand of forest, it is more likely to be killed (by pesticides, household pets, etc.) or to leave permanently in search of another patch of forest. At the same time, since there are no nearby stands of forest, there are no nearby sources of animals. The result is that the number of animals within the remaining stand declines.

This "island effect" can be corrected by means of a simple concept: wildlife corridors. Simply put, wildlife corridors provide protected areas which link otherwise separated "islands" of habitat. This concept is of particular value in areas such as the Southland, where in many cases the last remnants of once-widespread habitat are surrounded by development. In San Diego County, the effects of this fragmentation of habitat have been documented in studies of canyons left undeveloped between developed areas. The number of species and individuals in canyons which are not linked to one another has been found to decline. The smaller the patch of canyon habitat, the more dramatic the decline.

The exact size of a piece of habitat, or the width and length of a corridor needed to preserve species diversity, is difficult to determine. While it can generally be stated that habitats and corridors function better as their size increases, the minimum size of a habitat must be determined on a case-by-case basis.

One example of how this concept can be accommodated within the general framework of land use regulations can be found in Lee County, Florida, which has codified the "buffer area" which must be provided if certain species are present. The Lee County protected species ordinance requires, for instance, that a buffer of 750 feet must be placed between development and a certain species of woodpecker; a buffer of ten feet is judged sufficient for some plant species.

According to wildlife biologists, buffer zones for species found in Southern California and San Bernardino County have not been accurately determined. In neighboring Orange County, standards have been established which define how wide natural areas along stream edges should be, based on the type of stream (the larger the stream, the wider the corridor). However, recent evidence from several developments in Orange County has suggested that Orange County's standards may not be stringent enough. Biologists are currently studying declines in wildlife activity in some Orange County wildlife corridors, seeking to draft improved regulations.

When establishing corridors, the most likely candidates are generally streams and rivers. Due to the presence of water, trees, and understory (bushes and grasses), animals are attracted to rivers and streams, and frequently use them to travel from one area to another. Because they are not suitable for development, river bottoms are also generally less disturbed than surrounding areas, making them valuable habitat resources in urbanizing areas such as the Valley region. An example is the Santa Ana River, which is one of the last--and largest--links between San Bernardino National Forest and northern Orange County and the Cleveland National Forest. On a local level, the many stream courses extending southward from the San Bernardino mountains (with the exception of those which have been channelized) also serve as routes for animals seeking to move through the urbanized areas of the Valley. Similarly, presently undeveloped areas throughout the County can be used by wildlife to travel safely from one area to another.

It should be noted that some researchers have suggested that corridors may have negative effects. Along with allowing animals to migrate, corridors can also make the transmission of diseases, fires,

and other undesirable elements. However, it is generally accepted that the positive benefits of corridors outweigh negative effects, particularly in urbanized areas, where the primary concern is to prevent inbreeding and declines in species living in scattered habitat "islands."

Policy direction related to the establishment of corridors and the elimination of "islands" is contained in the countywide Natural Resource Preservation Policies. For additional related policies, refer to the Health and Safety section of this Open Space Element, which contains policies related to alteration of watercourses.

D. Habitat Banks

"Habitat banking," which is related to the issues of habitat and corridor protection, describes a system under which a public agency, such as the County, acquires title to a large area of natural habitat capable of supporting species diversity. This habitat area is initially purchased by the public agency, with funding ultimately derived from private developers, who are given the opportunity to purchase "shares" in the habitat bank to mitigate the loss of smaller areas of habitat within their developments.

As discussed above, the larger the habitat area, the greater the likelihood that desired natural values will be retained. By preserving large areas in favor of smaller, unconnected habitat, habitat banking achieves this objective.

E. Urban Open Spaces

County Open Space Goal C-37 proposes the establishment of natural open space areas in urban settings. The following discussion relates to that goal, and the need to provide urban open spaces.

While much attention has been focused on providing natural areas outside of cities for plants and animals (or to provide corridors which allow animals to pass through them), it should be noted that urban open space areas within cities can also have considerable value.

For instance, the simple step of allowing tall grasses and bushes to grow in a portion of a park which might otherwise have only mowed grass and trees can substantially increase the number of birds attracted to the park. If native grasses and plants are established to provide food for these birds, the increase can be more dramatic.

Incorporating wildlife into the urban setting can have many positive effects. Most persons prefer living in a community which contains wildlife amenities, a preference reflected in the generally higher property values associated with higher levels of wildlife (all other value-determining factors being equal). Utilizing this type of approach also brings a "nature" experience closer to persons in urban settings who may not have the opportunity to travel to national forests or nature reserves.

Including urban open spaces in an overall open space system can also serve to improve the function of the corridor systems described above. By providing stopping places along a corridor, this type of urban open space can encourage animals to travel further along a corridor than would be the case if they had no other opportunity for rest or shelter.

There can be negative effects, however. From an aesthetic standpoint, the type of landscaping which is necessary to attract larger numbers of birds and other animals is different from the typical "park"

appearance most persons expect at a city park. Native vegetation needs to be "unkempt"--it is the tangle of branches and twigs which makes it valuable for wildlife. From a crime prevention standpoint, areas of thick growth can make the job of law enforcement officers more difficult; in some areas, providing less cover for criminals may be judged by some to be more important than providing more cover for animals.

F. Major Natural Resources in San Bernardino County

The following discussions provide information on major natural resources in San Bernardino County, including areas or geologic features of special value or concern, specialized habitat areas, and threatened or endangered plant and animal species.

1. Major Federal and State Open Space Resources

A variety of public and private agencies currently protect important natural areas in the County, either through ownership or regulatory control. Open space resources managed by various federal, state and private agencies in San Bernardino County are listed below. For the locations of these resources, refer to the Open Space Background Appendix. Information on the locations of these areas is shown in the U.S. Forest Service's San Bernardino National Forest Land and Resources Management Plan, the Bureau of Land Management's California Desert Conservation Area Plan, and in the Jurisdictional Control map in the County's GIS mapping system.

As discussed in this Element, a major source of potential conflicts between open space and private uses of land derives from the "checkerboard" pattern of ownership in many areas of the County, and in particular in portions of the BLM's California Desert Conservation Area and the National Forest. County Policy LU-10, in the Land Use section of the General Plan, specifically addresses this issue, and promotes cooperation between the County and federal agencies to consolidate public ownership in so-called "checkerboard" areas. County Policy OR-25, listed in this section of the Open Space Element, also addresses this issue.

a. Bureau of Land Management

The Bureau of Land Management (BLM) has jurisdiction of vast areas of the County, in the Desert region. Included in the areas managed by the BLM are "Areas of Critical Environmental Concern (ACEC)," which have been identified as containing unique or limited natural features or habitat areas. A summary listing of these areas is provided in the Open Space Background Appendix. Other BLM special management areas are Unusual Plant Associations (UPA) and Wilderness Study Areas (WSA).

b. United States Forest Service (USFS)

The U.S. Forest Service manages the majority of the mountain regions within the County, which are for the most part located within the Angeles and San Bernardino National Forests. Areas within the National Forests which are managed for a variety of uses include: Cucamonga Wilderness, San Gorgonio Wilderness, Sheep Mountain Wilderness. Special permit areas for skiing, hang gliding, OHVs and camping. (Source: Recreation Element of the Forest Service Management Plan on file at Office of Planning). The sizes of wilderness areas maintained by the U.S. Forest Service are shown on the following page.

TABLE E

FOREST SERVICE WILDERNESS AREAS

Name	Acreage
San Gorgonio Wilderness	56,162
Cucamonga Wilderness	12,981
Sheep Mountain Wilderness	2,560

An important issue related to National Forest lands is the Forest Service's current policy to consolidate its landholding, divesting lands subject to urban pressures which do not, in its opinion meet the needs of the Service, in return for lands elsewhere which provide superior habitat or recreational values.

In the San Bernardino National Forest, the Forest Service has recently transferred several hundred acres of forest land to private ownership in return for public ownership of larger areas of land elsewhere.

In response to these transfers, and other planned transfers, the "Save Our Forests Association" has been established in the mountain communities to discourage the further transfer of National Forest lands to private ownership. Of specific concern to this group are several parcels in the Twin Peaks and Valley of Enchantment areas, totaling more than 600 acres. County Policy in the Mountain Region section of the General Plan specifically addresses this issue, and supports cooperation with the Forest Service to retain these lands as permanent, public open space.

c. California Department of Fish and Game

The California Department of Fish and Game maintains the fish and game preserves listed below within San Bernardino County.

TABLE F

STATE FISH AND GAME DEPARTMENT PRESERVES

Name	Acreage
Mojave Fish Hatchery	10
Camp Cady Wildlife Area	1,223
Baldwin Lake Ecological Preserve	125
King Clone Creosote Ring	40

d. California Department of Parks and Recreation

The California Department of Parks and Recreation manages a number of public parks within the County, including: Chino Hills State Park (9,418 acres existing, 4,082 acres proposed addition), Providence Mountain State Park (5,890 acres), Silverwood Lake State Recreation area (2,400 acres), Seccombe Lake (62 acres).

e. University of California Natural Reserve System

The University of California maintains several nature reserves in San Bernardino County, as shown in the Table G.

TABLE G
UNIVERSITY OF CALIFORNIA NATURE RESERVES

Name	Acreage
Etiwanda Wash	176
Burns Pinon Ridge	265
Granite Mountains	2,119 (UC)
Sacramento Mountains	7,311 (6,720 - BLM, 591 - UC)

Information on the locations of these reserves is referenced in the Open Space Background Appendix.

f. National Monuments

Portions of three National Monuments are located within the County: Death Valley National Monument, Joshua Tree National Monument (559,960 acres), Rainbow Basin National Landmark.

Sources of information on the locations of national monuments are referenced in the Open Space Background Appendix.

2. Nature Conservancy Preserves

The Nature Conservancy, a private non-profit organization, maintains a number of open space preserves, listed below, in various portions of the County.

Sources of information on Nature Conservancy Preserves are referenced in the Open Space Background Appendix.

TABLE H
NATURE CONSERVANCY PRESERVES

Name	Acreage
Baldwin Lake Preserve	450
Big Morongo Canyon Preserve	145
Castle Glen Bald Eagle Sanctuary	200
Sugarloaf Biota Bank	10

3. Specialized Habitats on Private Lands

In addition to areas protected by public agencies or private conservancies, specialized habitats also occur on private lands throughout the County. These areas are important for the preservation of natural resources. Because of continuing pressure from urbanization, these areas are generally declining in numbers and size. A listing of major areas of habitat known to occur on private lands is shown below. Sources of information on these habitats are referenced in the Open Space Background Appendix.

TABLE I

IMPORTANT HABITAT ON PRIVATE LANDS

Specialized Habitat	Location
Alkali Wet Meadow	Bear Valley/Baldwin Lake
Pebble Plains	Bear Valley/Baldwin Lake
Limestone Substrate	Bear Valley/Baldwin Lake
Walnut Woodland	Chino Hills/Tonner Canyon
Joshua Tree Woodland	Desert regions Countywide
Perennial Springs	Limited distribution Countywide
Riparian Woodlands	Restricted to areas immediately adjacent to stream and river courses Countywide

To address the issue of specialized habitat occurring on private lands, this Open Space Element, as well as other elements in the General Plan, contains a variety of policies which address the need to regulate private activities which could adversely affect open space resources of all types. Specific policies dealing with resources limited to specific regions are also contained in this Open Space Element.

4. Other Natural Resources Areas of Biotic Significance

The following areas have been identified by a variety of agencies as being of special significance for biotic resources. Where appropriate, a critical natural resource associated with each area is noted. This list reflects identified resources; others may also exist, but have not been specifically identified.

TABLE J

AREAS OF BIOTIC SIGNIFICANCE (PARTIAL LISTING)*

- Cajon Creek
- San Bernardino and Little San Bernardino Mountains
- Amboy Crater
- Old Woman Mountains (Habitat for bighorn sheep and puma; contains dry lakes and sand dunes)
- Turtle Mountains

TABLE J (Cont'd)

AREAS OF BIOTIC SIGNIFICANCE (PARTIAL LISTING)*

- Whipple Mountains
- Piute Springs (Habitat for special plants & birds)
- Lanfair Valley (Significant stands of joshua trees)
- Providence-Woods Mountains
- Wildhorse Mesa (Habitat area for bighorn sheep and deer)
- Providence corridor (Special plant & animal association, habitat for creosote bushes and pinon junipers)
- Cima Dome (Halloran summit, significant stands of joshua trees)
- Lava beds (Specialized biotic habitat on basaltic rock)
- Devils Playground (Habitat for special sand-adapted species)
- Mojave River (Important desert riparian habitat--only major flowing river in the area)
- Amargosa River (Habitat for special plants and animals)
- Pisgah Crater (Specialized biotic habitat on basaltic rock)
- Ord & Roman Mountains (Habitat for bighorn sheep, chukar, and quail)

** This is specifically not intended to be a listing of all areas worthy of preservation for natural resource values, but only to highlight some large, significant, and identifiable areas.*

Sources of information on areas of biotic significance are referenced in the Open Space Background Appendix.

This Open Space Element, as well as other sections of the General Plan noted in this Element, contains a variety of countywide and region-specific policies dealing with the natural resource issues present in these areas.

5. Hot Springs

Hot Springs, which are caused when subsurface water is heated by geothermal activity, are located in several areas of the County, and occur in scattered locations in the Valley, Mountain, and Desert regions. Hot springs are an open space resource which is valuable in part because this type of spring is uncommon, and in part because these springs often support special or unique plant and animal species.

Sources of information on the locations of hot springs in San Bernardino County are referenced in the Open Space Background Appendix. County Policy OR-34 deals specifically with the preservation of existing hot springs.

6. Mountainous Terrain

Mountainous terrain is an important open space resource for several reasons: mountains in San Bernardino County are a scenic resource, an important habitat area for wildlife, and represent an area in which substantial development is not likely to take place (making these areas candidates for long-term open space preservation).

Mountainous terrain (which is not synonymous with the "Mountain region," which consists primarily of the San Bernardino mountains) is found throughout the County. Several important mountain ranges, including the New York, Bullion, Bristol, and Cady mountains, are located in the Desert region, where their unique habitats often support special plants and animals.

Sources of information on the location of mountainous terrain are referenced in the Open Space Background Appendix. Specific policies related to natural resources in mountain areas are contained in this section. For other policies which relate to issues in Mountain areas, please refer also to the Scenic Resources section of this Open Space Element.

7. Sand Dunes

Sand dunes are located primarily in the Desert region of the County, most notably in the Devil's Playground area and east of the Calumet mountains. Dunes historically also occurred in the Valley region in and around the City of Colton, although only scattered remnants of these dunes have escaped urbanization.

Sand dunes are an open space resource for several uses. Dunes are a natural resource, providing habitat for desert-dwelling and other creatures, and serve as a scenic resource. In some areas, dunes are also used for recreational purposes, primarily by off-highway vehicle (OHV) users. (Note: Not all uses can be achieved simultaneously. See information on multiple use opportunities.)

For a listing of sources of information on the location of sand dunes in San Bernardino County, refer to the Open Space Background Appendix. For policy direction specifically related to sand dunes, see Policy OR-36 and policies in the Desert Region section of the General Plan.

8. Lava Flows

Lava flows, which are found in the Desert region, are protected as an open space resource due to their limited distribution and the unique character of these areas. Several large lava flows exist in the desert south of the Cady mountains and east of the community of Baker.

Information sources for the locations of lava flows are referenced in the Open Space Background Appendix. Policy OR-37.a specifically addresses the issue of lava flows.

9. Cinder Cones

Cinder cones, the remnants of ancient volcanoes, are found in the Desert region, and are protected as an open space resource due to their limited distribution and their unique character. In the County, cinder cones are generally associated with lava flows, which are described above.

Information sources for the locations of cinder cones are referenced in the Open Space Background Appendix. For specific policy direction related to cinder cones, see Policy OR-37.b.

10. Dry Lakes/Playas

Dry lakes and playas are located in many areas in the Desert region, generally in areas far removed from urbanization. Examples of large dry lakes include Soda Dry Lake, south of Baker, Searles Dry Lake, in the northwestern corner of the County, and Bristol Dry Lake, in the south central portion of the County. More than 40 major dry lakes are found in the Desert area. No dry lakes are located in the Valley or Mountain regions.

Dry lakes and playas are noted as an open space resource due to the unique character of these areas, and due to the unsuitability of some dry lake or playa soils for development, which indicates that these areas should remain as open land. Dry lakes and playas in some areas provide a striking scenic resource, but have also been used for recreational purposes, chiefly by OHV users. (Note: Not all uses can be achieved simultaneously. See information on multiple use potential for further information.)

Information on the location of dry lakes is referenced in the Open Space Background Appendix. For specific policy direction related to dry lakes and playas, see Policy OR-37.c.

11. Fragile Soils

Fragile soils are noted as an open space resource due to the general unsuitability of these areas for development purposes, and due to the limited extent of these areas, which in many cases support plant and animals species adapted to these conditions (as in the pebble plains in the Mountain region). Fragile soils are found throughout the Desert region, and in the portion of the County south of the I-215 and I-10 freeways.

Sources of information on fragile soils are referenced in the Open Space Background Appendix. For specific policy direction related to this issue, see OR-18.e. Policies in other elements of the General Plan may also apply.

12. High Erosion Hazard Soils

Areas with soils subject to high levels of erosion are noted as a potential open space resource due to the general unsuitability of these areas for development purposes, which indicates that open space uses may be more appropriate. These soils are found throughout the Desert region, and in many areas in the Mountain and Valley regions.

Information sources for high erosion hazard soils are referenced in the Open Space Background Appendix. For specific policy direction related to this issue, see Policy OR-18.e. Other policies may also apply.

13. Perennial and Intermittent ("Blue-Line") Streams

Perennial and intermittent streams of all sizes are an important open space resource in San Bernardino County, providing riparian (streamside) habitat and wildlife dispersion areas, serving as scenic resources, and providing natural channels for storm flows. Since San Bernardino County receives relatively little annual rainfall, these streams--particularly those which flow year-round--are of special importance to wildlife, which depends on reliable sources of water.

In the County, streams are primarily associated with drainage from the San Bernardino mountains, although creeks and small watersheds can be found in many areas. Major drainages and flood plains within the County include the Lytle Creek and Cajon Wash, the Santa Ana River, Mill Creek, and City Creek in the Valley region. The major desert features are the Mojave and Colorado Rivers (See Section II-C-4, Water).

Sources of information on the location of blue-line streams are referenced in the Open Space Background Appendix. This section of the Open Space Element contains several policies related to preservation of natural watercourses. For further policy direction, refer to the Health and Safety section of this Element, which contains policies related to the alteration of natural stream courses.

14. Groundwater Recharge Areas

Groundwater recharge areas, in which rainwater can percolate into subsurface groundwater basins, are located throughout the County. These areas include both natural open space areas and manmade facilities. Examples of manmade facilities include the spreading grounds along the major flood control facilities in the Valley region. Since they rely on open land for their function, groundwater recharge areas (both natural and manmade) are included in this Element as an open space resource.

For information on the location of surface groundwater recharge areas, refer to the Open Space Background Appendix. Specific policy direction favoring the retention of groundwater recharge areas as open space is contained in Policy OR-66 in Section 9 of this Open Space Element.

15. Lakes and Reservoirs

Lakes and reservoirs are of special importance in San Bernardino County due to their scarcity, and for their ability to provide a variety of open space uses, including recreation, natural habitat, water storage, and scenic beauty. (Note: Not all uses may be achieved simultaneously. See information on multiple use potential for further information.)

Many of the County's lakes, including Big Bear Lake, Lake Arrowhead, Lake Gregory, Green Valley Lake, and Silverwood Lake, are manmade, and were established within this century.

Naturally occurring bodies of water in the County include Baldwin Lake, Erwin Lake, Deadman Lake, Jenks Lake, Harper Lake, numerous desert dry lakes and the shoreline along the west bank of the Colorado River.

The use of these features is controlled by land use designations and other development strategies. Major drainages and flood plains are the last component of water resources within the County. These include the Lytle Creek and Cajon Wash, the Santa Ana River, Mill Creek, and City Creek in the Valley portions. The major desert features are the Mojave and Colorado Rivers (See Section II-C-4, Water).

Sources of information on the locations and shorelines of lakes are referenced in the Open Space Background Appendix. This section of the Open Space Element contains a number of policies which support the retention of lakes as open space, and the use of these areas for natural habitat, recreation, and other appropriate uses.

16. Wetlands

Wetlands have in recent years been recognized as an important open space resource, providing important habitat areas for plants and animals, including migratory birds which live elsewhere but rely on local wetlands as stopover points. In San Bernardino County, as elsewhere in the United States, however, the original supply of wetland areas has been seriously diminished by decades of "swamp draining" and similar practices which resulted from a need to provide land and a mistaken notion that wetlands were a nuisance to be eliminated.

In San Bernardino County, the stock of wetlands is especially low because of the relative scarcity of perennial streams or springs. Those wetland areas which remain are therefor especially important.

A discussion of information sources for the locations of wetlands is contained in the Open Space Background Appendix. Policy OR-24.b, in this section, specifically addresses the issue of wetland protection. In addition, various other policies in this and the Health and Safety section of the Open Space Element address the issue of wetland and stream modification.

17. Limited Habitat Types: Chaparral, Conifer Forest, Woodland, Riparian Areas

Many plant communities of limited dispersion are located throughout the County. Because they represent habitat which is in some cases unique and in all cases limited in its extent, these areas represent an important natural open space resource. Chaparral is found throughout the lower elevations of the Mountain region, and extends into the northern portion of the Valley region. Coniferous and sub-alpine forests are limited to the upper elevations of the San Bernardino mountains. Desert woodland occurs along the northern flanks of the San Bernardino mountains. Riparian areas occur in many areas where perennial or intermittent water is available and natural habitat has not been completely removed.

Information sources to determine the locations of limited habitat types is referenced in the Open Space Background Appendix. This Open Space Element contains a variety of policies which support the retention of special habitat areas. In addition, this section of the Element references policies in the Biology section of the General Plan which address this issue.

18. Joshua Trees

Joshua trees are an important natural resource in the desert region of the County, where these plants are part of the natural desert ecosystem and a scenic resource. In general, it can be assumed that Joshua trees may be present on most sites in the desert and the desert/mountain interface. Joshua trees are found throughout the County, and are a particular issue in the vicinity of the "High Desert" communities, where the trees often face removal as part of the development process. In less urbanized areas, Joshua trees are sometimes "farmed" to extract natural substances from the plants.

Sources of information on Joshua tree stands are referenced in the Open Space Background Appendix.

Joshua trees are protected by County ordinance and State law.

19. Champion Lodgepole Pine

Information on the locations of areas containing Champion lodgepole pines are discussed in the Open Space Background Appendix.
This natural resource is protected by the BLM under the terms of the California Desert Conservation Area Plan in areas under federal jurisdiction. In areas where this resource occurs on private lands, exchange into public ownership, as supported in County Policy OR-25.

20. Large Mammals and Raptors:
Beaver, Mountain Lion, Bear, Golden Eagle

A variety of large mammals inhabit natural areas in San Bernardino County. These mammals are generally similar in their need for large habitat areas in which to stake territory, seek food, and distance themselves from human activity. These mammals are primarily located in and near the Mountain region, and have ranges of varying size. The beaver is found only in scattered locations where sufficient water and forage are available.

Information sources on the locations of habitats for these species are referenced in the Open Space Background Appendix. A number of policies, both in this Open Space Element and elsewhere in the General Plan, support the preservation of habitat areas for these and other animals in San Bernardino County. Several wildlife corridors and policy zones, shown on the Resources Overlay, have been established specifically to protect habitat for these and other species; a description of all proposed corridors is contained in the Open Space Background Appendix.

21. Spotted Owl

The spotted owl, which inhabits "old growth" forests (those which have not been harvested for timber), has been designated in the Pacific Northwest as an endangered species by the federal government, extending the protection of the federal Endangered Species Act to this species. In San Bernardino County, habitat for the spotted owl is located primarily in undeveloped areas of the San Bernardino mountains where "old growth" forests remain.

Information sources on habitat for the spotted owl are referenced in the Open Space Background Appendix. Various policies in this Open Space Element, as well as the federal Endangered Species Act, protect the spotted owl.

22. Bighorn Sheep

Bighorn sheep are generally found in the Desert region in mountainous locations, where forage and water which support this species can be found. Bighorn sheep are found at upper elevations in mountain ranges throughout the County. Some major habitat areas for this species include the Cucamonga Wilderness, Mt. San Gorgonio, and several mountain ranges in the Desert region.

As an endangered species, the Bighorn sheep is protected both by federal law and County policy. Several areas shown on the Resources Overlay have been established to protect critical habitat

areas for Bighorn sheep; other habitat areas for this species, although not specifically mapped, are also identified by County policy to be preserved.

Sources of information on bighorn sheep are referenced in the Open Space Background Appendix.

23. Stephens Kangaroo Rat

Although the majority of habitat areas for the Stephens kangaroo rat (SKR) are located in Riverside County, a small portion of this species' range is located in southern San Bernardino County east of Loma Linda.

Sources of information on habitat areas for the Stephens kangaroo rat are referenced in the Open Space Background Appendix.

As an endangered species, the Stephens kangaroo rat is protected both by federal law and County policy.

24. Southern Rubber Boa

The southern rubber boa is a species of snake which inhabits forest floor habitat in a wide area of the San Bernardino Mountains, generally concentrated near and to the southeast of Lake Arrowhead.

The Open Space Background Appendix references sources of information on the location of known occurrences of this species and its habitat.

As an endangered species, the Southern rubber boa is protected both by federal law and County policy.

25. Mojave Ground Squirrel

The Mojave ground squirrel is generally found in the Desert region, although its range includes portions of the northern flank of the San Bernardino mountains. The habitat range for this species includes the cities of Barstow and Victorville. As an endangered species, the Mojave ground squirrel is protected both by federal law and County policy.

Sources of information on this species are referenced in the Open Space Background Appendix.

26. Yuma Clapper Rail

Habitat for the Yuma clapper rail is concentrated in the southeastern portion of the County along the Colorado River, generally extending south from the City of Needles to the Riverside County line.

As an endangered species, the Yuma clapper rail is protected both by federal law and County policy.

Sources of information on the Yuma clapper rail and its habitat are referenced in the Open Space Background Appendix.

27. Sonora Lyre Snake

The habitat area for the Sonora lyre snake within San Bernardino County generally lies along the Colorado River, generally extending from the southernmost point of the County/Nevada border to the Riverside County line.

As an endangered species, the Sonora lyre snake is protected both by federal law and County policy.

Sources of information on this species and its habitat are referenced in the Open Space Background Appendix.

28. Desert Tortoise

Habitat capable of supporting the desert tortoise is found throughout the Desert region, including areas near the urbanizing region of Barstow and Victorville. As a federally classified threatened species, and State classified endangered species, the Desert tortoise is protected by federal and State law as well as County policy.

Sources of information on the desert tortoise are referenced in the Open Space Background Appendix.

29. Least Bells Vireo

The Least Bells vireo is a bird species which spends part of the year in California, where it generally nests in riparian areas which contain stands of willow trees. Declines in the number of individuals of this species in recent years have been blamed in part on a decrease in the area of riparian habitat in Southern California, as well as other factors. As an endangered species, the Least Bells vireo is protected both by federal law and County policy.

Sources of information on the Least Bells vireo and its habitat are referenced in the Open Space Background Appendix.

30. Wild Burros

The descendants of burros released by 19th century prospectors, wild burros are found in the Desert region. Wild burros are subject to management decisions and practices of the Bureau of Land Management; the County does not maintain specific policies related to this species.

Sources of information on wild burros are referenced in the Open Space Background Appendix.

31. Special Fish

San Bernardino County is home to a variety of threatened and endangered fish species, including several which exist only in the County. These species include the humpback sucker, bonytail,

colorado squawfish, mojave chub, relict brine shrimp, relict crayfish, Tecopa pupfish, and the unarmored 3-spine stickleback (discussed earlier in this section). Several fish species which occur only in San Bernardino are found near the community of Baker; others are found in scattered locations in the desert between Needles and the Riverside County line.

Sources of information on endangered fish and other animals are referenced in the Open Space Background Appendix.

As endangered species, these fish are protected by state and federal law and County policy.

32. U.S. Forest Service Management Zones

U.S. Forest Service Management Zones describe areas within the National Forest in which various management strategies are applied. Knowledge of these zones is useful as part of the development of an open space management strategy for private and publicly owned open space lands adjacent to areas managed by the Forest Service. For instance, open space lands adjacent to Forest Service lands managed for forage might be treated in a manner different from lands adjacent to Forest Service wilderness areas.

Information on Forest Service Management Zones are referenced in the Open Space Background Appendix.

33. SCAG Areas of Regional Significance and Concern

As part of its 1975 regional plan of open space areas, the Southern California Association of Governments identified a number of areas within San Bernardino County as critical open space areas.

These areas are listed in the Open Space Background Appendix, which also references information on the locations of these areas.

34. BLM's Multiple Use Classifications

G. General Plan Goals and Policies Related to Natural Resource Preservation

The following goals and policies, which are part of the Biology section of the County General Plan, are referenced here to illustrate the County's overall goals related to the preservation of natural resources. For details on these goals, the Biology section should be referenced.

Biology Goals: C-5, C-6, C-7, C-8, C-9

1. General Plan Policies and Actions Related to Natural Resources

The following policies and actions, which are part of other sections of the General Plan, are referenced to illustrate policies in addition to those listed in this section which should be applied to projects throughout the County.

Biology Policies/Actions: BI-1, BI-2, BI-3, BI-4.d, BI-5

Land Use Policies/Actions: LU-1.g, LU-10.c .d .e .f .g .h .i

Flood Control Policies/Actions: FL-8.a .b .c

H. Natural Resource Preservation Goals

The following are the County's goals related to resource preservation.

C-34 Conserve as many of the County's natural resources as possible and ensure the protection and preservation of traditional regional park values for the benefit of future generations.

C-35 Provide and preserve large open-space areas for both active and passive resource values.

C-36 Include, protect, and manage areas having natural values of regional significance.

C-37 Provide natural areas in urban settings to increase species diversity and provide wildlife viewing opportunities for persons within cities.

C-38 Protect the alpine character and environment.

C-39 Protect the forest watersheds.

C-40 Minimize soil erosion through control of flooding and sedimentation.

C-41 Throughout the County, protect natural slopes and topography.

I. Natural Resource Preservation Policies/Actions

To address the need to preserve natural resources, the following Natural Resource Preservation Policies shall be applied:

OR-15 Because the County desires to protect and preserve natural habitat, areas shown on the Resources Overlay as "Policy Zones" and "Wildlife Corridors" shall be targeted for ministerial and discretionary actions, including purchase of some lands, in support of preserving the natural features and habitat present.

OR-16 Because unwanted entry by pedestrians, equestrians, bicycles, or motorized vehicles can harm the desirable attributes of some open space areas, the following policies shall apply:

a. Control access to lands used for open space purposes as appropriate to retain the desirable open space attributes of the land.

b. Limit construction of roads into or across natural open space areas or areas which require separation from human activity to preserve their function and value.

OR-17 Because preservation of natural systems requires the establishment of habitat areas larger than can be provided within individual developments, and since many habitat areas are at risk of being lost to urban encroachment, the County shall seek to establish a publicly owned open space system, purchasing land or development rights, or transferring development rights or density, where necessary to prevent development of important open space areas.

OR-18 Because preservation of natural resources cannot be accomplished only through the use of publicly owned land, the County shall apply the following policies to development and construction proposals on private lands.

a. Require that private lands which exhibit unique features, as identified on the Resource Overlay Map or discussed in this Open Space Element, shall maintain those features. Compensation by allowing the transfer of development rights will be the preferred mechanism for accomplishing this goal. "Unique features" may include significant topographic features, ridgelines, habitats for threatened and endangered species, and habitats of limited dispersion in the County.

b. Encourage donation or exchange of lands with sensitive biota resources (including, but not limited to, areas shown on the Resources Overlay) to non-profit environmental organizations or responsible agencies (USFS, County, the Nature Conservancy, etc.).

c. Promote common-interest Planned Developments requiring open space and allowing transfer of development rights.

d. Apply the Resource Conservation Land Use District in areas of public and private open space which by its location, access limitations, natural resources, terrain or scenic qualities is suited for low intensity use.

e. Direct growth away from areas containing fragile or erosion-prone soils, especially those which support natural habitats.

OR-19 Because preservation of large habitat areas can be more successful as a natural resource preservation strategy than preservation of smaller, scattered areas within individual developments, the County supports the concept of "habitat banking," and shall make this type of system available to developers.

OR-20 Because preservation of threatened and endangered species requires the preservation of naturally occurring ecological systems containing plants and animals not considered threatened or endangered, the County shall include in its review of all development projects the total habitat value of a site, rather than simply the presence or absence of these species.

OR-21 Because successful long-term preservation of habitats can only occur where species diversity can be maintained through continued migration of animals, the County shall seek to eliminate the creation of habitat "islands," which consist of habitat surrounded by developed areas or other impediments to animal movement. To accomplish this, the County shall seek to:

a. Require that open space areas set aside within individual developments be contiguous to natural areas adjacent to the site, if possible. Isolated open space areas within development shall be specifically discouraged, but may be accepted if no adjacent open space areas are available.

b. Use open space corridors to link natural areas.

c. Re-establish important wildlife corridors which may have been damaged or destroyed.

d. Consider design, construction, and maintenance techniques in the County Flood Control District system where technically and economically feasible which allow the growth of habitat and the use of the flood control system by wildlife.

OR-22 Because preservation of natural resources can in many cases be achieved by providing sufficient distance between natural and developed areas, the County shall ensure that roads and buildings have an appropriate setback from riparian corridors, except where this requirement would endanger public safety. These setbacks shall be based on an engineering inundation analysis and on the wildlife and plant communities within the corridor, and shall consist of at least the following:

a. Provide a setback of at least 50 feet from the edge of the mean annual flow area for all intermittent washes designated as "blue lines" on USGS quadrangle maps where riparian communities exist.

b. Provide a setback of at least 100 feet from the edge of the mean flow area for all perennial creeks and streams designated as "blue lines" on USGS quad sheet maps.

c. Provide a corridor extending to the ridgelines defining the watercourse, or of a size determined by a qualified biologist to be sufficient to maintain wildlife use for all larger riparian areas, such as large creeks and rivers.

These setbacks may be waived in the case of roadway crossings, roadways on levees adjacent to water courses, or in similar situations where physical separation is not possible or appropriate.

OR-23 Because a regular assessment of the effectiveness of providing setbacks from natural areas is necessary to ensure that these measures are achieving the goal of protecting natural areas, the County shall regularly review minimum riparian area setbacks to determine whether the distances established serve the purpose of preserving wildlife use and natural habitats. If necessary, recommended setbacks shall be revised.

OR-24 Because preservation of rare, threatened, or endangered species depends on the preservation of habitat which supports populations of these species, the County shall implement the following policies:

a. Seek to protect and conserve rare or endangered flora and fauna with limited or specialized habitats as well as common habitats necessary to support these species.

b. Allow no net loss of existing wetland areas. Retention of existing biologically functioning wetlands shall be preferred over their replacement with manufactured wetland areas. In cases where wetland areas are established to replace areas lost to development, replacement shall take place at a ratio of five acres of new wetland for each one which is lost.

c. Require all County agencies, including Special Districts and the Transportation/Flood Control Department, to demonstrate that their projects meet the overall Biotic Resource and Open Space policies of the County prior to proceeding. Approval for projects which do not meet with these policies shall be made only when it can be demonstrated that no technically feasible alternative exists.

d. Seek to provide protection and management to maintain habitat values where protection of natural areas and endangered species is not provided by another agency.

e. Review land use designations to ensure that planned land uses provide adequate protection for natural areas in areas containing known or potential biotic resources or designated as open space zones, corridors, or active trail alignments on the Resources Overlay. This policy shall also apply to areas adjacent to zones, corridors, or active trail alignments.

OR-25 Because the development of private lands can adversely affect the management strategies of the federal agencies which administer public lands within San Bernardino County, the County shall apply the following policies:

a. Support the transfer of private inholdings into public ownership through appropriate mechanisms to reduce "checkerboard" ownership.

b. Review the planning documents of the public agency to determine the intensity of uses allowed on surrounding public lands when examining private land uses which are surrounded by public lands.

c. Develop private inholdings within Wilderness Study Areas in the California Desert Conservation planning area after reviewing and considering the stipulations of the Federal Land Policy and Management Policies Act (FLPMA) until Congress takes action to designate specific wilderness areas.

Areas identified by the Bureau of Land Management as being of Critical Environmental Concern include:

- Trona Pinnacles
- Grimshaw Lake
- Amargosa River
- Salt Creek (Dumont)
- Clark Mountain
- New York Mountains
- Ft. Piute
- Fort Soda
- Afton Canyon

- Eriophyllum
- Harper Dry Lake
- Mojave Fishhook
- Upper Johnson
- Soggy Dry Lake
- Big Morongo Canyon
- Rainbow Basin Natural Area
- Cronese Lakes
- Redman Mountains
- Black Mountain Cultural Area
- Calico Early Man Site
- Denning Spring
- Juniper Flats
- Kingston Range

In addition, the Bureau of Land Management has also designated the East Mojave National Scenic Area as an area of special concern.

OR-26 Because preservation of natural resources may require purchase of private lands, the County shall consider the use of funding for the regional open space/trails system for use in the consolidation of public landholding within the National Forest and California Desert Conservation Area where these purchases will further the implementation of the Open Space/Trails System and where no other source of funding exists to purchase or transfer development rights from these lands.

OR-27 Because preservation of some natural resources requires the establishment of a buffer area between the resource and developed areas, the County shall review the Land Use Designations for unincorporated areas within ten (10) miles of any state or federally designated scenic area, national monument, or similar area, to ensure that sufficiently low development densities and building controls are applied to protect the visual and natural qualities of these areas.

OR-28 Because preservation of natural resources is a goal of the County, the County shall support land use and landscape strategies and standards which protect wildlife habitats and important vegetation.

OR-29 Because the preservation of natural resources can be achieved or assisted through the establishment of proper management practices, the County shall encourage the use of good conservation practices in the management of grading, replacement of ground cover, protection of soils, natural drainage, and the protection and replacement of indigenous trees.

OR-30 Because loss of natural resources can be prevented only when sufficient information on the resource is available, the County shall apply the following actions and policies:

a. Develop a Master Environmental Assessment listing open space resources and establish a method of monitoring their protection.

b. Permit development proposed within canyons with riparian or water-related corridors only after a site-specific investigation is conducted to define the extent and fragility of the natural vegetation, and when it is found that the proposed development will not substantially damage the natural vegetation either directly or indirectly.

OR-31 Because damage to natural resources can be prevented by discouraging inappropriate development, the County shall discourage single family residential development proposed within canyons with riparian corridors. In all areas with natural habitat values, the County shall encourage development to be clustered or otherwise adapted to protect riparian areas from damage.

OR-32 Because the design of development projects and the implementation of landscaping within developments can have a significant effect on the County's goal of preserving natural resources, the County shall apply the following policies:

a. Prohibit removal of mature vegetation found within riparian corridors unless done to reduce safety hazards and in a manner that will not damage the ecosystem of the corridor. Removal of vegetation shall be performed in accordance with Section 1600 of the State of California Fish and Game Code.

b. Require that landscaping materials in canyon areas be similar to adjoining or nearby natural areas and are native or drought-tolerant with fire retardant qualities.

c. Encourage project designs that provide visual link with the surrounding environment by incorporating creeks and areas adjacent to channels within the open space of projects and by landscaping to reflect the natural riparian character of the canyons.

d. Encourage use of the cluster development concept, large lot districts, and open space and drainage easements to protect stream beds, vegetation, soils and wildlife.

OR-33 Because cooperation with private landowners and the development community can advance the goal of protecting natural resources, the County shall make available to developers/owners information on the general tax advantages of donating land to nonprofit organizations such as the Nature Conservancy and the marketing value of conservation easements, which may increase the value of adjacent land donations, etc.

OR-34 Because hot springs are a natural resource of special value due to their limited extent, the County shall seek to protect all existing hot springs by placing these features in permanent open space areas.

OR-35 Because the County has identified a goal of providing open spaces in urban areas, the County shall support the establishment of "urban open space areas" within urban areas, and shall seek to develop or retain these areas through cooperation with local cities. Where possible, these areas shall be located along or near regional trail routes.

OR-36 Because sand dunes, particularly those in the vicinity of Slover Mountain, have special value as habitat and scenic resources, and because dunes can be damaged or destroyed by

development, the County shall seek to retain these features as open space to provide habitat for species endemic to dunes.

OR-37 Because the County contains open space values which are of local, regional, statewide, and national significance, the County shall apply the following policies.

a. Seek to retain all existing lava flows in their existing condition as natural open space. Where lava flows are located on federal lands, the County shall encourage the Bureau of Land Management or other responsibility to preserve these features.

b. Seek to retain all existing cinder cones in their existing condition as natural open space. Where cinder cones are located on federal lands, the County shall encourage the Bureau of Land Management or other responsible agency to preserve these features.

c. Seek to retain all existing dry lakes and playas in the their existing condition as natural open space. Where dry lakes and playas are located on federal lands, the County shall encourage the Bureau of Land Management or other responsible agency to preserve these features.

OR-38 Because preservation of natural resources will require the implementation of new plans and policies, the County shall implement the following actions:

a. Establish habitat "land banks" as mitigation for loss of isolated resources.

b. Initiate the preparation of Multi-Species Habitat Conservation Plans for all endangered species within the County whose habitats are judged by the state Department of Fish and Game or the federal Fish and Wildlife Agency to be subject to encroachment and destruction by any type of development or resource extraction.

c. Prepare a "Protected Species Mitigation Ordinance" specifying specific buffer distances and other considerations which shall apply to all public and private development activities with the potential to affect threatened or endangered species or habitat areas.

d. Work with state and federal agencies to identify public lands available for acquisition or exchange.

SECTION 6. MANAGED PRODUCTION OF RESOURCES

While many of man's uses of the land, such as housing, industrial facilities, and business centers, require the urbanization of the land, a number of economically productive uses also exist which rely on open land unencumbered by development or the responsibilities brought on by adjacent uses. This category of open space includes those uses which either require this open land, (including farming and mineral production) or which harvest products from lands which have not been urbanized (such as the grazing of forage or the harvesting of timber). Resource production also includes the use of open space as an area to recharge underground aquifers which store water for ultimate use within the County.

This section of the Open Space Element discusses open space areas which are needed to maintain the ability of the County to maintain healthy resource extraction industries, including mining and farming, and how these uses can be coordinated with other open space uses.

A. Major Productive Open Space Resources in San Bernardino County

1. Mineral Resources

It is estimated that there are approximately 8,000 acres of identified mineral resources found in nearly all regions of the unincorporated County. (See Section II-C-7, Minerals.) These include deposits of aggregates (sand and gravel) at the bases of the San Bernardino mountains, limestone deposits on the northern flank of the mountains above Hesperia, and various deposits of minerals, metals, and rare earths in the Desert region. Sources of information on the locations of mineral resources are referenced in the Open Space Background Appendix.

Mineral resources are presented as an open space issue both because mining requires open land upon initiation, and can revert into open space lands when mining ceases. Mining also has the potential to adversely affect adjacent land uses, including open space uses.

2. Water Conservation and Management Areas

The overall management of water resources requires large areas of open space, which is needed for reservoirs (such as Lake Silverwood), groundwater recharge areas, channels, and other facilities.

There are four state regional water quality control boards which manage the quantity and quality of local groundwater resources. They are the Lahontan, Colorado, Santa Ana, and Los Angeles Regional Boards. San Bernardino County and the underlying groundwater aquifers provide for domestic water storage on both a local and regional basis. The replenishment of groundwater occurs both artificially and naturally. Imported water from northern California is recharged into local aquifers throughout the County. Various facilities for handling imported water include the California Aqueduct (which feeds Silverwood Lake and then extends into Riverside County to Lake Perris) and the Colorado River Aqueduct (which feeds Gene Wash Reservoir and Copper Basin Reservoir near Parker Dam). These waters are managed by five state water contractors: the Mojave Water Agency, Chino Basin Municipal Water District, the Crestline/Lake Arrowhead Water Agency and the Metropolitan Water District of Southern California.

These agencies, along with local purveyors, have established manmade lakes for water conservation and recreational purposes. These include Lake Silverwood, Lake Arrowhead, and Big Bear Lake. Lake Gregory is managed solely for recreation purposes.

Groundwater recharge areas are discussed in the "Preservation of Natural Resources" section of this Open Space Element.

3. Agricultural Lands

Agriculture, which requires large areas of open land, is one of the County's most important industries, accounting for a gross valuation in 1989 of $630,530,000. (Agriculture is discussed in detail in a separate section of the General Plan.)

Information on farmland in San Bernardino County is referenced in the Open Space Background Appendix.

4. Grazing Areas

San Bernardino County's open lands support a large grazing industry, which encompasses areas in both the mountains and deserts. According to the County Agricultural Commissioner, approximately 3.4-million acres of land in the deserts and mountains were grazed for forage in 1989, at a value of $0.063 per acre.

Information on the locations of grazing areas are referenced in the Open Space Background Appendix. In addition to being a productive use of the land in its own right, grazing may be an appropriate management strategy on some County-owned open space lands.

5. Agricultural Preserves

Agricultural Preserves and Williamson Act contracts are utilized for the protection and enhancement of agricultural lands. There are 22 preserves containing more than 36,000 acres within the unincorporated area of the County.

In many areas, the County's agricultural base is increasingly threatened by the encroachment of urban uses. For instance, the large dairy preserve in the south Chino area, for which the County is noted, is adjacent to two large cities (Chino and Ontario) and, with the completion of the I-15 freeway, is now surrounded by major highways. Citrus farming, once widespread, is currently declining in the Valley region of the County, where groves are being closed and replaced with new housing.

There still remain large blocks of active viable citrus farms predominantly in the East Valley region. The Desert region also provides for a multiple of agricultural uses, principally along the Mojave River extending from Silverwood Lake to the Newberry Springs area. As noted in the Soils/Agriculture section of the General Plan, the establishment of new agricultural operations in the desert may face severe limitations in available water supply and quality.

6. Commercial Fisheries

A commercial fishery, as defined by the State Department of Fish and Games, involves the taking of fish from the wild for profit. San Bernardino County (a relatively dry County) is not the home of any major commercial fishing operations which fit this definition. There are, however, several small fish farms in the County. These small farms raise exotic fish such as koi and species of rainbow trout, large mouth bass and, most commonly, channel catfish. They are sold to consumers for food or to stock private farm ponds. Basically, these "fish farms" are considered a form of specialty agriculture or aquaculture.

This Open Space Element does not contain policies related to commercial fisheries.

B. General Plan Goals Related to Managed Production of Resources

The following goals, which are contained in other chapters of the General Plan, are referenced here to highlight goals which the County has adopted in support of open space planning.

Soils/Agriculture Goals: C-51, C-52

Minerals Goals: C-53

1. General Plan Policies Related to Managed Production of Resources

The following policies, which are contained elsewhere in the General Plan, are referenced here to illustrate some policies in support of the County's open space goals. This is not intended as a complete reference; for additional policy guidance, other sections of the General Plan should be consulted.

Soils/Agriculture Policies: SA-2.i.,p.,q.

Land Use/Growth Management Policies: LU-1.a.,b.,d.,e.,f.

Minerals Policies: MR-3.a.,b.,c.,d., MR-4.a.,b.,c.,e.

C. Managed Production of Resources Policies/Actions

The following are the Managed Production of Resources Policies of the County:

OR-39 Because mineral extraction is essential to the economic well-being of the County and requirements of society, it should be encouraged where significant mineral deposits exist and when found to be compatible with adjacent uses.

OR-40 Because mining uses can be effectively placed within flood control areas, and can serve as part of a maintenance strategy for debris basins and other flood control facilities, the County shall encourage mixed use between sand and gravel extraction and Flood Control District projects, except where mining would destroy desirable open space attributes.

OR-41 Because closed mining operations have the potential to be used as permanent open space if proper planning and operations are carried out, open space uses shall be considered in surface mining reclamation plans.

OR-42 Because soils are a limited resource, soils should be protected and restored by developing a plan of native plantings designed to promote the restoration of soil in present rocky flood plain areas. Artificial planting of vegetation in floodways may be discouraged, although re-establishment of plants through natural means may be allowed.

OR-43 Because preservation of agricultural lands can be achieved through the application of appropriate land use regulations, the County shall apply the following policies:

a. The County shall support the use Williamson Act Preserves and Contracts to preserve agricultural lands.

b. Designate those areas containing productive agricultural uses with a land use district permitting that use.

c. In land use decisions, the County shall permit only those use types within agricultural areas that will contribute to the economic viability of the primary agriculture use while not detracting from or competing with it.

d. The County shall seek to protect the supply of water for agriculture by restricting or excluding agricultural uses which have a high rate of water consumption in overdrafted areas.

OR-44 Because grazing lands are an important resource, and because grazing has the potential to damage resources present on some open space lands, the County shall apply the following policies:

a. On open space lands maintained by the County, grazing may be considered as part of an overall management strategy where this use is consistent with the purpose of the open space lands.

b. Through cooperation with the federal government, seek to limit grazing on public lands to those areas which can support this use without detracting from other open space values, and seek to prevent grazing on County-controlled lands where this use would detract from other open spaces uses within or adjacent to a grazed area.

SECTION 7. RECREATION

While modern society has created many types of recreation which can occur in an urban setting--or even within buildings--open areas in the outdoors remain an important location for many Americans seeking rest and relaxation. This type of open space can include areas such as the National Forests, where visitors seek recreation by hiking, camping, picnicking, and skiing; and areas where use of off-highway vehicles (OHVs) is permitted.

This section of the Open Space Element discusses open lands which are needed for recreation purposes (with the exception of trails, which are discussed in a separate section of this Element).

A. Major Recreation Resources in San Bernardino County

1. Regional Parks

The following County Regional Parks, which are described in detail in the Regional Parks Strategic Master Plan, 2010: Our Parks Future, are shown by location on the Resources Overlay. Specific information regarding the boundaries of regional parks is available from the Regional Parks Department.

Many other areas, including areas adjacent to regional parks, are discussed for potential acquisition in the Regional Parks Strategic Master Plan, which may be consulted for further information.

TABLE K
COUNTY REGIONAL PARKS

Park	County Region	Park	County Region
Prado	Valley (West)	Lake Gregory	Mountain
Cucamonga-Guasti	Valley (West)	Calico Ghost Town[b]	Desert
Glen-Helen	Valley (East)	Mojave Narrows	Desert
Agua Mansa (future)[a]	Valley (East)	Mojave River Forks	Desert
Yucaipa	Valley (East)	Big Morongo Wildlife Preserve	Desert
Citrus Heritage (future)[a]	Valley (East)	Moabi[c]	Desert

a. These parks are planned, but not yet built. Agua Mansa Regional Park is proposed to be built on the site of the current Colton Landfill when that facility closes. Citrus Heritage Park is proposed to be constructed on land adjacent to the San Bernardino County Museum.
b. An updated master plan for this Regional Park is currently under way.
c. An updated master plan for this Regional Park is scheduled to be under way in 1990.

Specific policies related to regional parks are listed later in this section.

2. Community Parks

Community, municipal park, and/or neighborhood park facilities are provided by city park departments for the incorporated areas and by self-governed and board-governed park districts

within the unincorporated portions of the County. These facilities typically include playgrounds, ballfields, and senior citizen centers. For the most part, new facilities have been provided within the city areas. However, the fact that new parks in unincorporated areas have not been realized is, in part, responsible for park over-utilization. In many instances in the County, the local park districts also cooperate with the school districts in conjunctive use of their facilities. However, when school and park facilities are combined by adjoining sites, each should be able to stand alone.

3. Districts and Service Areas with Park and Recreation Powers

Throughout the County, local recreation facilities, which provide recreational open space, are provided by independent and board-governed special districts. These districts typically collect an annual assessment on land within their boundaries, which is then used for the acquisition and operation of park facilities and recreation programs. Districts currently providing park and/or recreation facilities include:

TABLE L

PARK AND RECREATION DISTRICTS

Board-Governed Districts[a]

CSA 18	(Cedarpines Park)	CSA 70 P-2	(Muscoy)
CSA 19	(Chino)	CSA 70 P-4	(Phelan)
CSA 29	(Lucerne)	CSA 70 P-5	(El Mirage)
CSA 42	(Oro Grande)	CSA 82	(Searles Valley)
CSA 48	(Carbon Canyon)	CSA 82 SV-3	(Trona)
CSA 48A	(Sleepy Hollow)	Barstow Recreation and Park	
CSA 51	(Los Serranos)	Big Bear Valley Recreation and Park	
CSA 56	(Wrightwood)	Bloomington Park and Recreation	
CSA 56 F-1	(Pinon Hills)	Joshua Tree Park and Recreation	
CSA 63	(Yucaipa)	Twentynine Palms Park and Recreation	
CSA 70 CR	(Crafton Hills)	Yucca Valley Park and Recreation	

Independent Districts[b]

Apple Valley Park and Recreation	Morongo Valley CSD
Baker CSD	Newberry Springs CSD
Barstow Heights CSD	Parker Dam Park and Recreation
Big River CSD	Rim of the World Recreation and Park
Daggett CSD	Victorville Park and Recreation
Hesperia Recreation and Park	Yermo CSD

a. For "Board-Governed" Districts, the County Board of Supervisors serves as the Park District Board of Directors.
b. "Independent" Districts operate separate from County government, and have Boards of Directors which are elected by voters within each District.

4. San Bernardino County Park Inventory

The inventory of park facilities in Table M, below, includes both County and locally operated park facilities. Table N, following, provides an inventory of regional park land.

TABLE M
PARKLAND INVENTORY

	Number of Parks	Existing Acreage	Proposed Acreage
East Valley (RSA 29)	79	989.63	1,222.46
West Valley (RSA 28)	108	860.20	742.9
Mountains (RSA 30)	20	65.46	20.0
No. Desert (RSA 31, 32A & 32B)	47	342.65	219.35
So. Desert (RSA 33 & 34)	33	442.77	58.5
COUNTYWIDE TOTAL	**287**	**2,700.71**	**2,263.21**
City Parks	206	1,753.45	1,029.86
County Service Area Parks	24	260.88	7.0
Community Service District Parks	8	66.85	6.35
Park & Recreation Districts	49	619.53	220.0
TOTAL PARKS*	**287**	**2,700.71**	**1,263.21**
County Regional Parks	10	7,779.0	n/a
TOTAL	**297**	**10,479.71**	**1,263.21**
State Parks*	4	17,770.0	4,082.0
National Parks*	2	n/a	n/a
Univ. of Calif. Natural Reserves*	4	9,951	-176 (loss anticipated)

** State and National Parks and Reserves are not included in the County total.*

TABLE N

EXISTING REGIONAL PARKS AND ACREAGE BY REGIONAL STATISTICAL AREA (1989)

		REGIONAL AND LOCAL PARKS	EXISTING PARKS PROVIDED BY CITIES, CSA, CSD AND SELF-GOVERNMENT			EXISTING REGIONAL PARKS - COUNTY		
REGIONAL STATISTICAL AREAS	**1988 POPULATION (Est.)**	**Acres per 1000 Pop.**	**# of Parks**	**# of Acres**	**Acres per 1000 Pop.**	**# of Parks**	**# of Acres**	**Acres per 1000 Pop.**
RSA 28 (W. Valley)	504,700	6.48	108	860.20	1.70	2	2,350	4.66
RSA 29 (E. Valley)	453,100	6.35	79	989.63	2.18	3	1,725	3.81
RSA 30 (Mountains)	53,500	4.03	20	65.46	1.22	1	150	2.80
RSA 31,32* (N. Desert)	228,700**	19.29**	47	342.65	3.43	3	2,347	15.54
RSA 33,34 (S. Desert)			33	442.77	n/a	2	1,207	n/a
TOTAL	**1,240,000**	**8.74**	**287**	**2,700.71**	**2.18**	**11**	**7,779**	**6.27**

* *1988 Population estimates not available for RSA 32 and 34*
** *Combined totals of RSA 31 and 32*

5. Major Existing Trails

Existing and planned trails within the County are discussed in the Trails section of this Open Space Element. Policies and standards specifically related to trail development are presented in that section.

6. Bike Routes

Bike routes are related to open space since they can provide access to open areas. This Open Space Element does not deal specifically with bike routes, although most of the regional trails proposed in this Element will provide for bicycle use. Bike routes planned by the County or other local agencies should provide connections with these regional trails wherever possible.

7. OHV Areas

Increased interest in off-highway vehicle activities suggests a need for an OHV policy and designation of appropriate areas. Presently, uncontrolled use of available open space lands results in conflicts with existing uses, trespass, and destruction to private property, and, in some instances, natural habitat.

Information on Off-Highway Vehicle (OHV) areas in the desert under the jurisdiction of the BLM is referenced in the Open Space Background Appendix.

Specific policies dealing with OHV use are contained in Recreational Open Space Policy OR-47.

8. Points of Public Access to Lakeshores, Rivers, and Streams

The Santa Ana, Mojave and Colorado Rivers are defined by the U.S. Army Corps of Engineers ad "navigable" rivers. In actuality, the Santa Ana and Mojave Rivers are ephemeral rivers, flowing only intermittently above the ground. The Lower Colorado River is a highly valued water-based recreation source for people in southwestern Nevada, western Arizona and southern California. Recreational opportunities include fishing, camping, swimming, boating and water skiing. The Bureau of Land Management (BLM) has jurisdiction on much of the land along the river, not on the river itself; however, recreational activities tie the land and water into one interdependent network. One major regional recreation area is Moabi Regional Park, 11 miles southeast of Needles. Covering 1,027 acres, it is operated by County Regional Parks.

Defining the exact locations of public access to waterways is difficult to map, given the ownership pattern which generally exists adjacent to the County's lakes, rivers, and streams. Specifically, many lakes in the County are man-made and privately owned, and therefore open to public access only at controlled locations. A summary inventory of major public access opportunities to bodies of water is provided in Table O.

TABLE O
SUMMARY INVENTORY OF PUBLIC ACCESS TO BODIES OF WATER

Resources	Access Summary
Baldwin Lake	Some public access to the shore of this lake.
Big Bear Lake	Public access to lakeshore at many locations.
Colorado River	Public access to river at many locations, including Moabi Regional Park.
Cucamonga Guasti Regional Park	County Regional Park with public access to stocked fishing and boating lake.

TABLE O (Cont'd)

SUMMARY INVENTORY OF PUBLIC ACCESS TO BODIES OF WATER

Resources	Access Summary
Glen Helen Regional Park	County Regional Park with public access to lake for fishing and boating.
Green Valley Lake	This privately owned lake is open to the public for a fee for fishing.
Jenks Lake	Public access to this lake in the National Forest.
Lake Arrowhead	Limited public access to beach at this private lake.
Lake Gregory	County Regional Park with public beach and boat rentals.
Lake Silverwood	State Recreation Area provides public access to this water storage reservoir for boating, swimming, and fishing.
Lost Lake	Access limited to day use for picnics, etc.
Moabi Regional Park	County Regional Park with public access to Colorado River.
Mojave Narrows Regional Park	County Regional Park with public access to Mojave River and two fishing lakes.
Mojave River Forks Regional Park	County Regional Park with public access to Mojave River.
National Forest	Extensive public access to perennial and seasonal streams and rivers is provided throughout the National Forest. Much access is limited by terrain to hikers, mountain bicyclists, and other off-highway users.
Prado Regional Park	County Regional Park with 58-acre fishing and boating lake.
Santa Ana River	Extensive public access to portion of river within National Forest. Outside national forest, access is generally restricted by private and public owners.
Yucaipa Regional Park	County Regional Park with public access to lake for fishing.

Information on the locations of these features is referenced in the Open Space Background Appendix.

Policy direction related to improving public access to rivers and other waterways is contained in Recreational Open Space Policy OR-48.

9. Ski Areas

Ski areas represent a significant winter recreation opportunity in San Bernardino County. According to the California Department of Parks and Recreation, the number of hours spent skiing in the state region which includes San Bernardino County is projected to increase from approximately 4.9-million in 1990 to 5.7-million in the year 2000.

Ski areas within the County are generally located on land under the control of the U.S. Forest Service. Major ski areas in the County include Snow Valley, near Running Springs, and Snow Summit and Bear Mountain, both near Big Bear. Mapping of ski areas in the national forest is referenced in the Open Space Background Appendix.

10. Hang Gliding Areas (USFS Special Use Permit)

Hang gliding areas have been provided by the U.S. Forest Service in the San Bernardino National Forest through its special use permit process. A major hang gliding takeoff area is located in the San Bernardino mountains near the community of Crestline.

Information on hang gliding areas in the national forest is referenced in the Open Space Background Appendix.

B. General Plan Goals Related to Recreation

The following goal, which is contained in another section of the General Plan, is referenced here to illustrate County policy related to other issues which support recreational uses.

Transportation/Circulation Goal: D-23

C. Recreation Goals

The following are the County of San Bernardino's goals related to recreational open space.

C-42 Establish and implement policies and management strategies that will effectively conserve and utilize park resources.

C-43 Minimize conflicts between regional parks and surrounding land uses.

C-44 Establish theme programs that relate to cultural and natural resources in regional parks.

C-45 Develop and maintain a well-balanced regional parks system that will provide for the regional recreation needs of the public.

C-46 Develop scenic, cultural resources, and historic sites of regional value for public enjoyment.

C-47 Establish and maintain special regional facilities such as regional parks, historical facilities, nature preserves, off-highway vehicle areas and recreational airports.

C-48 Provide water-oriented regional recreation facilities.

C-49 Provide camping and picnic facilities where appropriate within County regional parks.

C-50 Develop and maintain areas for organized off-highway use where environmental damage can be minimized and land use conflicts avoided.

C-51 Protect and maintain regional resources of unique character and value where protection cannot be achieved through other agencies.

C-52 Establish and acquire a standard per capita acreage of local recreational parks.

C-53 Provide for common open-space and recreation uses whenever possible.

C-54 Provide public access to all water bodies and water courses.

D. Recreation Policies/Actions

The following are the Recreational Open Space Policies and Actions of the County.

OR-45 Because the County has fallen behind in the provision of Regional Park lands, and because a Strategic Master Plan has been approved, and because new development creates a demand for additional regional park facilities, the County shall:

a. Implement policies contained in the Regional Parks Strategic Master Plan, 2010: Our Parks Future.

b. Require new development within the County to provide regional recreation facilities via development fees.

c. Strive to achieve a standard of 14 1/2 acres of undeveloped lands and/or trails per thousand population and, 2 1/2 acres of developed regional park land per thousand population. "Undeveloped lands" may include areas established to buffer regional parks from encroachment by incompatible uses. Note: This standard of 14 1/2 acres of "undeveloped lands" does not establish an overall standard for provision of publicly owned open space lands. The need for lands in addition to those meeting the 14 1/2 acre standard is based on acreage required for resource protection, health and safety, and other concerns, and is not related to population.

d. During the land development process, continually work with the Regional Parks Department to identify future sites suitable for siting new regional park land as part of the ongoing Capital Improvement Program and amend the General Plan accordingly once specific sites have been chosen.

e. When specific projects are reviewed which exhibit natural features worthy of regional park land status, require the dedication of these lands when recommended by the Regional Parks Department and approved by the Board of Supervisors.

f. Assure that the variety of recreational experiences at Regional Park sites meets the needs of the region.

g. Seek the conjunctive use of public lands for regional park experiences. Flood control lands are one example, as are lands that have been deemed unsuitable for habitable structures.

h. Utilize public funding mechanisms wherever possible to protect and acquire regional park lands.

i. Cooperate with the County Transportation/Flood Control Department in establishing a viable regional trail system within the County.

j. Minimize the disposal of County lands until it is assured that these lands would not serve to enhance the Regional Parks Department goals for park and trail systems and other open space purposes. Utilize small parcels adjacent to flood control facilities for equestrian, pedestrian and biking staging areas. The County Transportation/Flood Control Department shall contact the Regional Parks Department or other County open space agency prior to disposing of any surplus lands.

k. Coordinate with the federal and state agencies regarding opportunities for leasing public lands for regional park, open space, and trail purposes.

OR-46 Because the provision of parks, open space lands, and trails directly contributes to the overall balance of land uses and quality of life, and because the amount of park land, open space, and trails available can be directly correlated to new development, the County will assure that these open space and recreation areas are both preserved and provided. To achieve this, the following policies shall be implemented:

a. New residential development shall be responsible for providing local park and recreation facilities at a rate of not less than 3 acres per thousand population. This could include the dedication of lands, payment of fees, or both.

b. Implement the Quimby Act (Gov. Code Section 66477) through the subdivision process in providing for local park opportunities (both passive and active).

c. Areas in new development proposals which are not suitable for habitable structures shall be offered for recreation, other open space uses, trails, and scenic uses. Retention of open space lands shall be considered with modifications to a site to increase its buildable area. Potential measures used to set aside open space lands of all types include dedication to the County or an open space agency, dedication or purchase of conservation easements, and transfer of development rights.

d. Recreational opportunities provided by new development shall not encourage or induce trespass on adjacent private lands.

e. In addition to parkland to meet the 3 acres per 1,000 local park standard, large-scale housing projects with 100 or more units shall provide onsite recreational facilities, including pools, tennis courts, and turfed play areas and totlots.

f. Classify local parks in three (3) categories: Local, Neighborhood and Community Parks.

g. Establish size and location standards as follows:

i. **Local Park**: A small walk-in park, up to five acres, serving a concentrated or limited population, particularly children, within a quarter mile radius.

ii. **Neighborhood Park**: A walk-in park, up to 10 acres, with a service radius of a half mile. Serves a neighborhood, and provides a passive recreation location for all age groups.

iii. **Community Park**: A walk-in, drive to park, up to 40 acres, which includes areas for intense recreational facilities and serves a combination of neighborhoods within a 1-2 mile radius.

h. Require review by the Office of Planning for the establishment of local parks.

OR-47 Because Off-Highway Vehicle (OHV) use must be regulated to allow recreational enjoyment while protecting sensitive natural resources, the County shall apply the following policies:

a. Prohibit the use of off-highway vehicles for recreational purposes on land other than one's own except in a designated area or on existing roads where such use is permitted, and subject to approval of a Conditional Use Permit/Site Approval.

b. Provide sufficient guarantees to assure all permit stipulations are adhered to for all sanctioned OHV events; temporary events shall receive a special events permit from the Department of Environmental Health Services.

c. Work with Federal agencies in implementing remedial measures to block OHV usage where it is deemed inappropriate and conflicts with open space uses as identified on the Resource Overlay.

d. Require all new development to install gates, fences, or other suitable OHV deterrents when deemed necessary.

e. Allow no OHV use in areas which provide habitat (including habitat which is not itself threatened) which supports threatened or endangered plant or animal species.

OR-48 Because the County seeks to improve the ability of the public to enjoy water-related recreation, the County shall seek to improve public access to rivers, streams, creeks, lakes, and other bodies of water.

OR-49 Because public access to water for recreational uses is important to the County, easements and dedications allowed in the Subdivision Map Act, to acquire access to lakes, streams, public lands and other locally and regionally significant natural features shall be required for all new development.

SECTION 8. SCENIC RESOURCES

Scenic areas in San Bernardino County contain vistas that rival many found elsewhere in the state and the nation. Rapid population expansion and decreased gasoline prices in the past decade have extended the range of the general public for weekend and vacation travel opportunities. This, coupled with a lack of public railways which conveniently interconnect the various populated lands, has resulted in current levels of private vehicle use being among the highest ever. The scenic quality of the routes which cross the County can be deteriorated by advertising and urban uses along these corridors. The state highway system is managed by Caltrans, which has designed several routes that qualify as scenic; others are potentially available.

Equally important in the discussion of open spaces are the routes available for the linking of various communities and also for the provision of access to open space areas which provide recreation.

San Bernardino County is crisscrossed by an extensive network of transportation corridors. All but the most remote areas are generally accessible by passenger vehicles. As urban areas grow and as the number of vehicles crossing the County spurs the demand for roadway service and advertising, resulting land uses are often incompatible with the preservation of open space.

A. Determination of Scenic Value

San Bernardino County contains a wealth of scenic resources, which have in many cases been recognized by local jurisdictions, the County, or state and federal agencies as worthy of special protection to preserve their aesthetic value. The County's vast undeveloped areas, for instance, provide a significant scenic resource in the undisturbed vistas they offer as a contrast to the more developed urban areas. Whatever the scenic resource, all help to improve the quality of life by providing pleasant surroundings in which to live, work, and recreate.

In general, a feature or vista can be considered scenic if it:

1) Provides a vista of undisturbed natural areas.
2) Includes a unique or unusual feature which comprises an important or dominant portion of the viewshed (the area within the field of view of the observer).
3) Offers a distant vista which provides relief from less attractive views of nearby features (such as views of mountain backdrops from urban areas).

Although a determination of scenic value must often be made on a case-by-case basis, the following standards are intended to clarify the identification of open space and other areas which should be preserved for their aesthetic value. The standards shown in Policy OR-50 recognize that some features should automatically be presumed to have open space value; in most cases, this recognizes the unique or limited extent of these areas, and the need to preserve the character (and the visual quality) of these features.

While many features are specifically considered "scenic," a variety of other areas and features within the County contain scenic values, and may need to be evaluated on a case-by-case basis. This category of features includes any outstanding feature, either natural or manmade, which is of scenic value due to its unique character, size, or general visual quality, and which is not considered automatically scenic. Examples include stands of timber, geologic formations, and smaller bodies of

water, which can generally be considered scenic. Policy OR-50 contains criteria for features which may be considered scenic on a case-by-case basis.

B. Scenic Highways

In recognition of the visual quality of the areas through which they pass, the roadways listed in Policy OR-58 are designated as scenic routes by the County. In some instances, these roadways have also been designated as state scenic highways by the California Department of Transportation (Caltrans). In addition, the length of the "Rim of the World Highway," which includes portions of Highways 138, 18, and 38, has been officially designated as a Scenic Byway by the U.S. Forest Service.

In the County, scenic highways are subject to additional land use and aesthetic controls under the County's Scenic Highway Overlay.

Trails as delineated in Section 4 are also considered to be part of the County's scenic resources.

C. BLM Scenic Area

The Bureau of Land Management (BLM) has designated a vast area of 1.5 million acres in the east central portion of the County as the **East Mojave National Scenic Area**. This Scenic Area is shown on mapping included in the California Desert Conservation Area Plan, which is on file at the Office of Planning.

As part of its **Back Country Byways** program, the BLM has also begun a process to designate a number of roadways in remote desert areas as Back Country Byways, a designation which is intended to alert motorists to the scenic quality of these less-traveled routes. One of these routes, the Wild Horse Canyon Back Country Byway, was designated as the nation's first Byway.

Further information on the Back Country Byways program is referenced in the Open Space Background Appendix.

D. Scenic Resource Goals

The following are the Scenic Resource goals of the County.

C-55 Preserve and protect the outstanding scenic resources of San Bernardino County for their continued future enjoyment.

C-56 Restrict development along scenic corridors.

C-57 Provide for visual enhancement of existing and new development through landscaping.

E. Scenic Resource Policies/Actions

The following are the Scenic Resources policies and actions to be followed in support of the County's Scenic Resource Goals.

OR-50 Because a clear definition of scenic values is important to the County's goal of protecting the quality of existing visual resources, the County shall apply the following definitions of scenic value.

a. Features meeting the following criteria shall be considered for designation as scenic resources:

i. A roadway, vista point, or area which provides a vista of undisturbed natural areas.

ii. Includes a unique or unusual feature which comprises an important or dominant portion of the viewshed (the area within the field of view of the observer).

iii. Offers a distant vista which provides relief from less attractive views of nearby features (such as views of mountain backdrops from urban areas).

b. Features meeting the following criteria shall be specifically defined as scenic, unless a clear finding can be made that no scenic values are present:

i. Views of major mountain ranges or portions thereof. This specifically includes views of mountain ranges from urban or desert areas.

ii. All areas containing significant biological resources, as identified on the Biotic Overlay map.

iii. Areas within Bureau of Land Management Scenic Areas.

iv. Areas within the East Mojave National Scenic Area.

v. Areas within any National Monument, or listed as a National Landmark.

vi. Sand dunes in the desert portions of the County, especially those considered part of the Kelso Dunes.

vii. Stands of timber consisting primarily of old-growth timber, or timber which has not been harvested within the past 50 years.

viii. Any natural blue-line stream, except those which have been channelized or lined with concrete.

ix. Lava flows.

x. Any lake or reservoir (uncovered) with a surface area of at least one acre.

xi. Historic or culturally significant structures.

xii. Regional Parks and their local access routes.

xiii. Any portion of the regional trail system.

xiv. All areas of critical environmental concern or special value identified by the County of San Bernardino, the Bureau of Land Management, the U.S. Forest Service, and the Southern California Association of Governments.

OR-51 Because the provision of scenic areas, trails and scenic highways is an integral part of the planning process, the County shall require the following:

a. Review of proposed development along scenic highways and trails shown on the Resource Overlay Maps to ensure preservation of scenic values for the traveling public and those seeking a recreational driving experience.

b. Define the Scenic Corridor to extend 200 feet on either side of the designated route, measured from the outside edge of the right-of-way, trail or path. Development along scenic corridors shall be required to demonstrate through visual analysis that proposed improvements are compatible with the scenic qualities present.

c. Require removal of non-conforming signs per County sign ordinance standards for new uses or substantial revisions to existing uses.

d. Along Scenic Routes, prohibit primary free standing signs, greater than 18 square feet. This shall include all primary free standing signs oriented to the scenic right-of-way.

e. Require provision of vantage or vista points along scenic routes by new development proposed adjacent to those routes for scenic and interpretive displays and roadside rests.

g. Require provision of ample and varied recreational and scenic opportunities by new development in coordination with local, state, and federal agencies, particularly for projects fronting state routes. This could include site design to preserve scenic vistas from parking lots to local or regional viewsheds.

h. Encourage undergrounding of all utility facilities for all projects requiring discretionary or ministerial action.

i. Require installation and maintenance of a minimum of 10% on-site landscaping which is drought tolerant and compatible with the regional environment and consistent with water conservation ordinances for all development, and particularly commercial and industrial development. Utilization of native trees and shrubs shall be incorporated and lawns shall not be permitted to cover more than 1/4 of total landscaped area requirements.

j. Control development on prominent ridgelines.

k. Allow new regional and community infrastructure on hilltops only when no alternative sites are available.

l. Review site planning, including architectural design, to prevent obstruction of scenic views, and to blend with the surrounding landscape.

m. Require compliance with grading and vegetation removal standards as set forth in the Scenic Routes Overlay District.

OR-52 Because preservation of scenic resources will require the application of specific standards and procedures, the County shall implement the following actions:

a. Identify actions to enhance the natural beauty of canyons and natural drainage courses.

b. Establish special site analysis requirements and development standards to reduce the impact on the scenic qualities of the foothills.

OR-53 Because preservation of scenic qualities is important to the County, development which would alter the character of visually significant resources should be prevented.

OR-54 Because billboards and other on- and off-site advertising signs can substantially detract from the enjoyment of scenic vistas, the County shall apply the following policies:

a. Limit the size, height and number of on-premise signs to the minimum necessary for identification.

b. Prohibit off-site advertising signs within and adjacent to all scenic corridors and where such signs would detract from the scenic qualities of any state or federally designated scenic area or scenic feature or any feature considered "scenic" as defined in this section.

OR-55 Because the County desires to improve access to scenic vistas, the County shall seek to establish off-street pull-outs at designated view points where appropriate along scenic highways.

OR-56 Because open space can promote neighborhood and civic identity by providing a clear definition to districts and neighborhoods, the County supports the use of open space and landscaping to define neighborhoods and district boundaries and to delineate edges between the natural and built environment.

OR-57 Because the preservation of scenic qualities can in many cases be achieved only through the preservation of existing landform and natural features, the County shall require the following:

a. Discourage residential development on land with slopes greater than 30 percent, ridge saddles, canyon mouths and areas remote from existing access.

b. Require that natural landform and ridgelines be preserved by using the following measures:

i. Keeping cuts and fills to an absolute minimum during the development of the area.

ii. Requiring the grading contours that do occur to blend with the natural contours on site or to look like contours that would naturally occur.

iii. Encouraging the use of custom foundations in order to minimize disruption of the natural landform.

iv. Requiring that units located in the hillsides be so situated that roof lines will blend with and not detract from the natural ridge outline.

c. Require that hillside development be compatible with natural features and the ability to develop the site in a manner which preserves the integrity and character of the hillside environment, including but not limited to, consideration of terrain, landform, access needs, fire and erosion hazards, watershed and flood factors, tree preservation, and scenic amenities and quality.

OR-58 Because the County desires to retain the scenic character of visually important roadways throughout the County, the County shall designate the following routes as scenic highways, and apply all applicable policies to development within the Scenic Corridor.

WEST VALLEY REGION

Chino Sphere Planning Area

a. State Route 71 — All unincorporated frontage.

West Valley Planning Area

b. State Route 83 — All unincorporated frontage south of Riverside Drive.
c. Mt. Baldy Road from Los Angeles County line northeast to Mt. Baldy.

Upland Planning Area

d. State Route 83 (Euclid Avenue/Mountain Avenue) from 24th Street northwest to San Antonio Dam

Rancho Cucamonga Planning Area

e. Wilson Avenue (proposed).
f. Day Creek Boulevard (proposed).

EAST VALLEY REGION

Oak Glen Planning Area

g. Oak Glen Road.

Bloomington Planning Area

h. Cedar Avenue from Bloomington Avenue south to Riverside County line.

Redlands Planning Area

i. Nevada Street within the Redlands sphere of influence.
j. Alabama Street within the Redlands sphere of influence.
k. Tennessee Freeway (State Route 30) within the Redlands sphere of influence.

East Redlands - Crafton Hills Planning Area

l. Interstate 10 from the City of Redlands southeast to the City of Yucaipa.
m. San Bernardino Avenue within the Redlands sphere of influence.
n. Mentone Blvd. within the Redlands sphere of influence.
o. Colton Avenue within the Redlands sphere of influence.
p. Citrus Avenue within the Redlands sphere of influence.
q. Highland Avenue within the Redlands sphere of influence.
r. Fifth Avenue within the Redlands sphere of influence.
s. Crafton Avenue within the Redlands sphere of influence.

Loma Linda Planning Area

t. San Timoteo Canyon Road within the Loma Linda sphere of influence.
u. Beaumont Avenue within the Loma Linda sphere of influence.
v. Barton Road within the Loma Linda sphere of influence.
w. Orange Avenue within the Loma Linda sphere of influence.
x. Nevada Street within the Loma Linda sphere of influence.

San Bernardino Planning Area

y. Interstate 215 from San Bernardino northwest to Interstate 15.

MOUNTAIN REGION

Mountain Subregional Planning Area

z. State Route 2 from State Route 138 southwest to Los Angeles County line.
aa. Lone Pine Canyon Road.

Hilltop Planning Area

bb. State Route 330 from the San Bernardino National Forest Boundary northeast to State Route 18.
cc. Green Valley Lake Road/101 Mile Drive.

Crest Forest Planning Area

dd. Crest Forest Drive from State Route 18 west to Sawpit Canyon Road.
ee. Playground Drive.
ff. Devil's Canyon Road.
gg. Sawpit Canyon Road/Sawpit Creek Road.
hh. Lake Gregory Drive.
ii. San Moritz Drive.
jj. Dart Canyon Road.
kk. North Road from Lake Gregory Drive northeast to State Route 189.
ll. Lake Drive from Knapps Cutoff northeast to Dart Canyon Road.

Lake Arrowhead Planning Area

mm.Grass Valley Road.
nn. Kuffel Canyon Road.

DESERT REGION

Joshua Tree Planning Area

oo. Park Blvd./Quail Springs Road from State Route 62 southeast to Joshua Tree National Park.

Twentynine Palms Planning Area

pp. Amboy Road from Bullion Mt. Road northeast to Amboy.

Baker Subregional Planning Area

qq. State Route 127 from Interstate 15 at Baker northwest to Inyo County line.
*rr. Kelbaker Road from Interstate 15 southeast to Interstate 40.
*ss. Kelso-Cima Road from Kelso northeast to Cima.
*tt. Cima Road from Interstate 15 southeast to Cima.
*uu. Essex Road from Essex northwest to Mitchell Caverns.
*vv. Cedar Canyon Road from Kelso Cima Road southeast to Lanfair Road.
*ww. Black Canyon Road.

Lower Colorado River Subregional Planning Area

*xx. Parker Dam Road from Parker Dam southwest to the Colorado River Indian Reservation.

** Designated by the BLM as a part of their Back Country Byway Program, a component of the National Scenic Byway System.*

MULTIPLE SUBREGIONS AND PLANNING AREAS

yy. Lytle Creek Road (*Lytle Creek Planning Area, Mountain Planning Area*).

zz. Interstate 15 from the Fontana City Limit northeast to the Nevada State Line, excepting those areas within the Barstow Planning Area and the community of Baker where there is commercial/industrial development, those portions within the Yermo area from Ghost Town Road to the Interstate 15/Yermo Road intersection on the south side only, and all incorporated areas. *(West Valley Planning Area, East Valley Subregional* Planning Area, Mountain Subregional Planning Area, Victor Valley Subregional Planning Area, Barstow Planning Area, Baker Subregional Planning Area).

aaa. State Route 38 within the Redlands and Yucaipa spheres of influence; from the Yucaipa sphere of influence northeast to Big Bear Dam (*Redlands Planning Area,* Yucaipa Planning Area, Mountain Subregional Planning Area, Bear Valley Planning Area).

bbb. State Route 138 from Crestline cutoff at State Route 18 northwest to Los Angeles County line (*Crest Forest Planning Area, Mountain Subregional Planning Area, Summit Valley Planning Area, Phelan Planning Area*).

ccc. State Route 173 from State Route 18 northwest to Hesperia; from Hesperia west within the Hesperia sphere of influence (*Lake Arrowhead Planning Area, Mountain*

Planning Area, Victor Valley Subregional Planning Area, Summit Valley Planning Area).

ddd. Coxey Truck Trail from Bowen Ranch Road southeast to Rim of the World Drive (*Victor Valley Subregional Planning Area, Mountain Subregional Planning Area, Bear* Valley Planning Area).

eee. Rim of the World Drive from Green Valley Lake Road to State Route 38 (*Mountain Subregional Planning Area, Bear Valley Planning Area*).

fff. State Route 18 from San Bernardino northeast to the City of Big Bear Lake; from Big Bear Lake northwest to Apple Valley; within the Victorville sphere of influence; from Victorville and Adelanto to the Los Angeles County line (*Mountain Subregional Planning Area, Crest Forest Planning Area, Lake Arrowhead Planning Area, Hilltop Planning Area, Bear Valley Planning Area, Big Bear Lake Planning Area, Victor Valley Subregional* Planning Area, Apple Valley Planning Area, Victorville Planning Area, Adelanto Planning Area, Phelan Planning Area).

ggg. Baldwin Lake Road from State Route 18 southeast to Pioneertown Road; continuing east on Pioneertown Road to Burns Canyon Road; continuing southeast on Burns Canyon Road to Rimrock Road; continuing southeast on Rimrock Road to Pipes Canyon Road (*Bear Valley Planning Area, Mountain Subregional Planning Area, Morongo Basin Subregional Planning Area*).

hhh. National Trails Highway from Oro Grande northeast to Lenwood (*Victor Valley* Subregional Planning Area, Barstow Subregional Planning Area, Barstow Planning Area).

iii. Interstate 40 from Ludlow northeast to Needles (*Baker Subregional Planning Area, Lower Colorado River Subregional Planning Area, Needles Planning Area*).

jjj. Lanfair/Ivanpah Road (*Baker Subregional Planning Area, Lower Colorado River* Subregional Planning Area).

kkk. Pioneertown Road from Pipes Canyon Road to the Town of Yucca Valley *(Morongo Basin Subregional Planning Area, Yucca Valley Planning Area).*

lll. State Route 247 (Old Woman Springs Road/Barstow Road) from the Town of Yucca Valley north to Barstow (*Morongo Basin Subregional Planning Area, Victor Valley* Subregional Planning Area, Barstow Subregional Planning Area, Yucca Valley Planning Area).

mmm. State Route 62 (Twentynine Palms Highway) from Riverside County line northeast to Town of Yucca Valley; from Town of Yucca Valley east to Twentynine Palms; from Twentynine Palms southeast to Riverside County line; from Riverside County line northeast to State line (*Morongo Valley Planning Area, Yucca Valley Planning* Area, Joshua Tree Planning Area, Twentynine Palms Planning Area, Morongo Basin Subregional Planning Area, Lower Colorado River Subregional Planning Area).

SECTION 9. PUBLIC HEALTH AND SAFETY

An important function of open space is its use as a buffer to separate people and buildings from intermittent or persistent hazards which could cause injury, damage, or death. This section of the Open Space Element deals with this type of open space: land which must be set aside to protect the health and safety of the public.

This category of open space includes both areas which are set aside to distance persons and buildings from hazardous situations (such as earthquake faults or flood-prone areas) and open land which is itself part of a system built to protect health and safety (such as flood control channels or basins). Also included in this category of open space are land uses which are required as part of the overall functioning of modern society and which include or require undeveloped land as a resource or a buffer; this includes landfills and airports.

As discussed in Section 2 of this Element, open space lands which have been set aside to protect public health and safety also have the potential for other uses. Lands along fault lines, for instance, can be retained in their natural condition as wildlife corridors; lands within pipeline rights of way can be used as trail easements; flood control facilities may be suitable for use as natural open space, mineral extraction, or recreation.

A. Major Open Space Areas for Public Health and Safety

The following sections discuss various types of open space which are required to protect the public health, safety, and welfare.

1. Principal Faults (Active and Potentially Active)

Like most of California, San Bernardino County is in a geologically active area. Numerous faults, some with the potential for severe ground movement, are located in all regions of the County, including the urbanized Valley and high desert areas.

Sources of information on earthquake faults are referenced in the Open Space Background Appendix.

For specific policy direction related to earthquake faults and fault zones, refer to County Open Space Goal C-58 and Policy OR-59.

2. Severe Soil Limitations for Septic Tanks

Soils with limitations on their use for septic tank leach fields can place constraints on development if no municipal wastewater treatment is available, and can therefore be used as an indicator of areas in which no or reduced development should be allowed. In these areas, open space may be retained either through very low building density or the prohibition of development to protect public health. Urbanized or urbanizing areas with soil types unsuitable for septic tank installation include the east Valley region, the "Rim of the World" area from Crestline to Running Springs, and the Big Bear area. Some of the soils in the Desert region pose substantial constraints on the development of septic systems.

Further information on areas with soils which constrain the construction of septic tank leach fields is referenced in the Open Space Background Appendix.

County Policy OR-70 seeks to direct growth away from areas without sewer service and the ability to support septic systems.

3. Slide Prone Areas

Areas subject to hazards from landslides can be used to provide open space, since development in these areas--if it is allowed--generally occurs at low densities. In general, these areas coincide with areas of fragile soils, which are discussed in the Natural Resources section of this Element.

Further information on slide-prone areas is referenced in the Open Space Background Appendix.

Policies dealing with development in areas subject to landslide hazards are contained in the Geologic section of the General Plan.

4. Dams

Dams relate to open space in several ways. In many cases, dams create reservoirs which can be used as a scenic or recreational resource (or both). Dams also in many cases place constraints on development within the defined area of inundation which would result from dam failure; in some cases, these lands can be retained as open space.

The largest dam in the Valley region is Prado Dam, although several other dams (primarily associated with flood control projects) are located on major north-south drainage channels. In the Mountain region, Lake Silverwood, Lake Arrowhead, Big Bear Lake, Green Valley Lake, as well as many smaller bodies of water, are retained by dams. In the Desert region, the Mojave River Forks dam is the only major structure of its kind.

Further information on the location of dams and their inundation areas is referenced in the Open Space Background Appendix.

County Policy OR-48 seeks to improve public access to all bodies of water, including lakes created by dams.

5. Channels

Channels, which in many cases traverse developed areas, have in many cases been constructed to protect public health and safety by directing floodwater; others have been constructed to provide irrigation water to agricultural areas. In many cases, channels have the potential for use as scenic resources or as parts of a local or regional trail system (if trails can be provided on the channel banks or bottoms). Channels are located throughout the Valley region, where they form an important part of the flood control system. The only major channel system in the Desert region is located north of Highway 62 near Yucca Valley.

Sources of information on the location of channels are referenced in the Open Space Background Appendix.

Policy OR-69a supports the use of channels as open space and/or trail areas.

6. Levees

Levees, like channels, have been created to protect public health and safety by preventing flooding of low-lying areas. Since levees in many cases pass through developed areas, and since they are generally constructed to allow vehicular access, the potential exists that these features can be used as parts of a local or regional trail system.

In the Valley region, major levee systems have been built along the courses of many major drainages, including the Santa Ana River. No major levee systems exist in the Mountain or Desert regions.

Further information on the location of levees in the County is referenced in the Open Space Background Appendix.

Policy OR-69a supports the use of levees as open space and/or trail areas.

7. Areas Subject to Flooding

Since development in areas subject to flooding is in most cases severely constrained or entirely prohibited, and since these areas often lie within river bottoms which contain natural habitat, these areas have the potential for retention as permanent open space for resource protection, recreation, or other uses requiring open space.

Sources of information on areas subject to flooding are referenced in the Open Space Background Appendix.

Specific policy direction supporting the use of flood hazard areas as permanent open space is contained in Policy OR-68.

8. Prado Dam Inundation Area

As part of a multi-agency program to provide flood protection to large areas in Orange County along the Santa Ana River, the level of Prado Dam will be raised, allowing the dam to hold more floodwater in the event of a major storm. One result of the raising of Prado Dam is that the area subject to flooding during a major storm will be substantially increased. Since no structures can be located in this "inundation area," a program has been initiated to purchase land within this area from private owners. Lands purchased will be retained as public open space.

Sources of information on the Prado Dam inundation area are referenced in the Open Space Background Appendix.

Policy OR-67 supports retention of the inundation area as permanent open space.

9. Seven Oaks Dam "Borrow Sites"

As part of the construction of the Seven Oaks Dam on the upper reach of the Santa Ana River, two areas north of the community of Mentone have been designated as "borrow areas" for pervious and impervious materials which will be used in the construction of the dam. These areas will be mined for fill material during the construction of the dam, and have the potential to be used as open space following construction. Like other mining sites (as discussed elsewhere in the Managed Production of Resources section of this Element), these borrow sites have the potential to be used as open space after mining ceases.

Sources of information on the borrow areas are referenced in the Open Space Background Appendix.

Policy direction supporting the ultimate use of the borrow sites as permanent open space, is listed in the Valley Region section of this General Plan.

10. Aqueducts (State water project, Colorado River, etc.)

Portions of two major aqueducts--the California Aqueduct and the Colorado River Aqueduct--traverse portions of the County.

The California Aqueduct passes through the southwest portion of the County; the Colorado River Aqueduct traverses a portion of the Desert region west of Lake Havasu.

Aqueducts provide open space opportunities similar to those offered by channels and levees. These features, which traverse vast distances, can in some areas be used either for recreation (primarily fishing) or as portions of a local or regional trail system.

Sources of information on the locations of aqueducts are referenced in the Open Space Background Appendix.

Policy OR-68 supports the use of aqueducts as trail alignments where possible.

11. Utility Easement Corridors, Railroads, and Major Pipeline Easement Corridors

Since they cross vast areas and often pass through urbanized portions of the County, utility easements and corridors, including rail lines, have the potential to serve as important links in an overall open space and trails system. Rail corridors in particular, due to their very mild grades and generally good access in urban areas, have been identified as important potential trail alignments. Rail corridors are found in many areas of the County, and are concentrated where they traverse mountain passes, such as the Cajon Pass in San Bernardino County and the Banning Pass in Riverside County.

A national organization, the Rails to Trails Conservancy, has been established specifically to facilitate the conversion of abandoned or seldom-used railway lines as trails, and has aided in the successful conversion of thousands of miles of railway lines. In California, 18 trails, totaling some 115 miles, have been constructed.

Information on the locations of energy and railway corridors are referenced in the Open Space Background Appendix.

Specific policy direction supporting the use of utility corridors as public open space and trail alignments is contained in Policy OR-69.

12. Landfills

A number of active, inactive, and closed landfills are located in both the urbanized and rural portions of the County. In addition, a number of landfills which were begun and operated without official permits are located in some areas.

Although landfills are often considered a community blight, they have the potential, given proper planning, to become relatively inoffensive. In addition, closed landfills, which cannot generally be used for development purposes, have the potential to become permanent open space areas. A number of cities in California and throughout the nation have completed the conversion of closed landfills into attractive open space amenities. The Regional Parks Department has begun planning the conversion of the Agua Mansa landfill in Colton to a recreation amenity when that facility closes.
Information on the locations of active and closed landfills is referenced in the Open Space Background Appendix.

Specific policy direction supporting the use of closed landfills as permanent open space for recreation and other uses is contained in General Plan Policy SW-2.e (in the Solid Waste section).

13. Airports/Military Facilities

Airports are discussed in this Open Space Element because they are a land use which requires large areas of open land (within the airport) and even larger areas of relatively undeveloped land for use as clear zones. With the enactment of recent federal legislation seeking to close two military air bases within the County, the potential also exists that some of the land within these installations can be retained as open space as part of an overall strategy to establish private uses.

Major civil airports located within San Bernardino County include the following:

- Apple Valley Airport
- Barstow-Daggett Airport
- Big Bear City Airport
- Cable Airport
- Chino Airport
- City of Needles Airport
- El Mirage Field
- Hesperia Airport
- Ontario International Airport
- Redlands Airport
- Rialto Airport
- Yucca Valley Airport (see Section II-B, Aviation Safety)

In addition, the following military bases are located within the County.

- Edwards Air Force Base
- George Air Force Base*
- Norton Air Force Base*

** Norton AFB and George AFB have been included in the recommended closure list by the Federal Commission on Base Realignment and Closure.*

Information on airports is contained in the "Transportation/ Circulation" section of the General Plan. The location of mapped information for airports is referenced in the Open Space Background Appendix. Specific policy direction supporting the use of closed airports as permanent open space is discussed in the Open Space/Health and Safety Policies.

County Policy OR-69c supports the use of closed airports or portions thereof as permanent open space.

B. General Plan Goals Related to Public Health and Safety

The following General Plan Goal is referenced to highlight policy direction in another portion of the General Plan which relates to open space issues.

Solid Waste Management: Goal D-9

1. General Plan Policies Related to Public Health and Safety

The following policies, which are contained in other chapters of the General Plan, are referenced here to highlight County policy direction which relates to open space issues.

Solid Waste Policies: Policy SW-2.e

Land Use/Growth Management Policies: Policy LU-1.a.,b.,d.,e.,f.,g.

C. Public Health and Safety Goal

The following is the County's goal related to open space for public health and safety.

C-58 Utilize open space areas to protect residents and structures from manmade and natural hazards, such as earthquake faults and buried pipelines.

D. Public Health and Safety Policies/Actions

The following countywide open space policies and actions are specifically related to Countywide Open Space Goal C-58, as well as to other County goals.

The following policies are presented in this Open Space section of the General Plan to specifically address open space/trails issues related to public health and safety, and to guide decisions to coordinate planning for public health and safety with open space issues.

OR-59 Because public health and safety can be protected through the use of open space, the County may maintain open space where flood, fire, geologic, seismic hazards, noise, or other conditions endanger public health and safety.

OR-60 Because pipeline easements have value as potential open space corridors, and require separation from residential and other uses, the locations of all known petroleum and other buried and above-ground pipelines shall be shown on the Hazards Overlay Map.

OR-61 Because public health and safety can be protected by providing buffers along the routes of pipelines carrying flammable materials, the County shall establish appropriate setbacks from any known petroleum product pipeline.

OR-62 Because retaining drainage courses in their natural condition retains habitat, allows some recharge of groundwater basins, and can result in savings related to the cost of constructing engineered drainage facilities, the County shall apply the following policies:

a. Seek to retain all natural drainage courses where health and safety is not jeopardized.

b. Prohibit the conversion of natural watercourses to culverts, storm drains, or other underground structures except where required to protect public health and safety.

c. Encourage the use of natural drainage courses as natural boundaries between neighborhoods.

d. Allow no development in the FW District and/or Flood Plain Overlay District(s) which would alter the alignment or direction or course of any blue-line stream.

e. When development occurs, maintain the capacity of the existing natural drainage channels where feasible, and flood proof structures to allow 100-year storm flows to be conveyed through the development without damage to structures.

f. Consistent with the County's efforts to protect the public from flood hazards, encourage the use of open space and drainage easements, as well as clustering of new development, as stream preservation tools.

g. Where technically feasible as part of its efforts to protect residents from flood hazards, require naturalistic drainage improvement where modifications to the natural drainage course are necessary. As an example, channel linings which will allow the re-establishment of vegetation within the channel may be considered over impervious linings (such as concrete). Where revegetation is anticipated, this must be addressed in the channel's hydraulic analysis and the design of downstream culverts.

h. Where technically feasible, encourage channel designs including combinations of earthen landscaped swales, rock rip-rap lined channels or rock-lined concrete channels. Where adjacent to development, said drainage shall be covered by an adequate County drainage easement with appropriate building setbacks established therefrom.

i. Do not place streams in underground structures where technically feasible, except to serve another public purpose and where burial of the stream is clearly the only means available to safeguard public health and safety.

j. Prohibit occupation or obstruction of natural drainage courses.

OR-63 Because achievement of the County's goals related to protecting open space lands which lie within drainage courses will be furthered by the application of consistent policies by all County departments, the County Flood Control District may adopt and implement specific policies regarding the operation of the County Flood Control District consistent with the overall intent of this Open Space Element.

OR-64 Because the County seeks to preserve open space lands with special values while directing development into appropriate areas, the County shall encourage the exchange of publicly owned land within the planning area for private land better suited for watershed protection and open space value.

OR-65 Because providing separation between developed lands and floodways can both preserve open space lands and protect public health and safety, the County may require a minimum 50 (fifty) foot building setback from all natural drainage courses except where a greater setback is specified by the Environmental Management Group or where the Environmental Management Group indicates a deviation from the minimum setback would not result in a hazard to the public safety or damage to natural vegetation or habitat values.

OR-66 Because the recharge of groundwater basins is vital to the supply of water in the County, and because these areas can function only when retained in open space, the County shall consider retaining existing groundwater recharge and storm flow retention areas as open space lands.

OR-67 To protect public safety, the County shall seek to retain areas within the Prado Dam inundation area as permanent, public open space. Consideration shall be given to retain this area as natural open space wherever possible.

OR-68 To protect public safety, the County shall support the use as permanent open space of areas within flood hazard zones which are not suitable for development of permanent structures or mining operations.

OR-69 Because the County seeks to maximize the use of open space lands, where possible, the following policies shall apply:

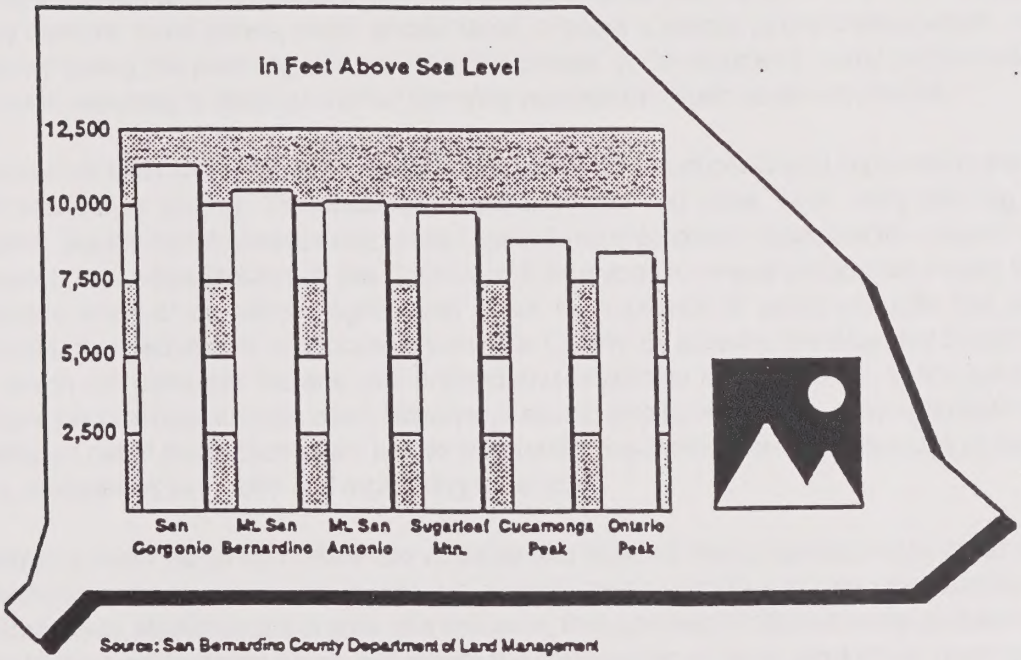
a. Consistent with safety and operational considerations, support the use of channels, levees, aqueduct alignments, and similar linear spaces for open space and/or trail use.

b. Where possible, consistent with safety and operational considerations, encourage the use of active and inactive utility easement corridors--especially railway corridors which have gentle grades which make them suitable for whole-access trails--as public open space areas and trail alignments.

c. Support the re-use of closed airports or military bases, or portions thereof, as permanent public open space areas.

OR-70 Because public health and safety are endangered through the establishment of urban uses without adequate sewer service, the County shall seek to direct urban development away from areas which are not served by domestic sewer systems, and in which soils cannot adequately support septic tank/leach field systems.

The 6 highest mountains in the County



Source: San Bernardino County Department of Land Management

6. SOILS/AGRICULTURE

Soil conditions in San Bernardino County are generally conducive to supporting urban structural developments of all kinds. Problematic soils are encountered only rarely and are not a cause for great concern. When soils do pose problems to urban development, it is principally from limitations in their physical characteristics to support urban types of uses. The most common soils constraint is the ability of the soils to be used for subsurface disposal of domestic wastes. Other potential problems are associated with construction methods, and relate to compaction, shrink-swell potential, and clay content. Sand dunes, rarely encountered, present a special circumstance which must be considered during the planning and construction phases of development. Many problematic soils are found in proximity to lakes and other low-lying depressions such as desert **playas**.

Preservation of soils and open space, used for agricultural production, is also important to the future of San Bernardino County. This includes crops, orchards and citrus uses, dairy farming, cattle production, poultry farms, and grazing areas. Agricultural enterprises represent the second largest dollar production value industry in the County, with increases in overall production values in l987. The current trend of urbanizing agricultural areas by hundreds of acres annually has already significantly changed the role of agriculture within the County. By allowing development of agricultural lands, which are generally flat and well drained and proximate to urban uses, lands suitable for agriculture are taken out of production. However, it should also be noted that many agricultural areas were phased out of production years before substantial residential growth for reasons of declining viability, decreasing air quality and increasing water cost.

Soils which sustain viable agriculture are valuable and needed. Prime agricultural lands and those classified as having statewide importance are currently being used to support both urban/rural and agricultural uses. Management of soils as a resource, through identification of areas containing soils with the highest productivity values, will assure the continuation of foods production, grazing, cattle production, dairy farming, and poultry operations.

These cows are part of a $400,000,000 industry in the County; Chino

Occupying over 93,000 acres of land area, agriculture is the second largest industry in the County, with an assessed product valuation of over $550 million in 1987. Approximately 36,000 acres of agricultural land are in 22 separate agriculture preserves, of which approximately 26,372 acres are under Williamson Act contracts. Of the total land under contract, 9,040 acres are classified as urban prime land, 3,200 acres as other prime land and 9,131 acres as non-prime land. In recent years, there has been a decline in the amount of land devoted to agricultural uses.

The reduction of agricultural land acreage is partly due to urban development and other market forces. The potential growth areas in the Valley portions of the County contain major agricultural areas. These are the Chino and Yucaipa areas. The rapid urbanization of the Valley areas has created a demand for conversion of agricultural uses to urban uses. The economic incentives to the

farmer for such conversion are great, because land valuations for urban development far exceed the market values for short-term agricultural uses.

Urbanization affects the agricultural industry in two ways. First, as development expands outward into once-remote areas, remaining flat agricultural areas are often surrounded by urban uses and their conversion to similar uses is facilitated by the proximity of urban services extensions. These lands frequently have few development constraints and generally lend themselves to higher densities than lands with topographic or other limiting features. Urban encroachment also leads to vandalism and nuisance complaints, another factor inducing farmers to relocate. Secondly, the types of agricultural uses are changing as agriculture gets displaced to hillside areas and smaller plots of prime land. Uses typically change to higher dollar value crops, which explains the phenomenon of reduced acreages and simultaneously increasing values.

The net effect is that the amount of vacant land that can be converted to viable cropland is quickly dwindling. The predicted population growth over the next twenty years may culminate in the reduction of the total acreage for agricultural uses, especially in the Chino area and East San Bernardino Valley. If it is to remain a County goal, it may become necessary to institute much stronger measures to protect viable agriculture land from urban encroachment. In 1988, the people of the State of California passed Proposition 70, an open-space proposal which allocated several million dollars for San Bernardino County to purchase conservation easements over the Chino Agricultural Preserve to lessen the pressure of urbanization.

The County is noted for its large dairy preserve in the south Chino area. Citrus farming, while once prevalent, is currently declining in the valley portions of the County. There still remain large blocks of active viable citrus farms predominantly in the East Valley. The Desert region has historically also provided for a multitude of agricultural uses, principally along the Mojave River extending from Silverwood Lake to the Newberry Springs area.

While having great agricultural potential, if water and development funds become available, the approximately 19,000 square mile desert area currently provides for only a small percentage of County agricultural value. Only lands adjacent to the Mojave River and surrounding valleys produce significant dollar value field crops, poultry and livestock. Much of this area is not subject to the urban pressures of the Valley and appears to have a long-term agricultural future. The Desert region may attract agriculture from the urbanizing Valley area should people decide to move their operations. However, establishment of new agricultural operations in the desert may face severe limitations in available water supply.

GOALS

C-51 Prime agricultural lands must be protected from the adverse effects of urban encroachment, particularly increased erosion and sedimentation, trespass, and non-agricultural land development.

C-52 Areas of prime agriculture lands supporting commercially viable and valuable agriculture shall not be developed to urban intensity prior to the supply of non-productive areas being exhausted.

POLICIES/ACTIONS

SA-1 Because specific soils conditions pose a constraint to various developments, the County shall require the following:

a. Areas where soils represent a constraint to development shall be identified. Development of areas where percolation restrictions apply, as designated by the Regional Water Quality Control Boards, will be coordinated and evaluated by the County Department of Environmental Health Services.

b. Areas of the desert regions where **caliche** problems are likely to occur will receive special attention and require special species for landscaping plans to minimize the deleterious effects of salt accumulation.

c. Desert playas shall not be used for habitable structures nor have large quantities of waters applied to them, except for mining operations, or to maintain existing wetlands.

d. Development adjacent to and on desert sand dunes shall receive special review for visual, biotic, and safety and engineering reasons.

SA-2 Because agricultural uses are valuable, the County shall encourage retention of productive, commercially viable agricultural land and discourage the premature or unnecessary conversion of agricultural land to nonagricultural use through the following:

a. Preservation of prime and statewide important soils types, as well as areas exhibiting viable agricultural operations, as shown on the Resource Overlay Maps, will be considered as an integral portion of the Open Space Element when reviewing development proposals.

b. Utilize the provisions of the Williamson Act to further the preservation of commercially viable agricultural open space and designate preserves on the Resource Overlay Maps.

c. Within agricultural preserves, establish minimum parcel sizes of 10 acres for prime and 40 acres for nonprime agricultural land and encourage consolidation of undersized parcels through the use of land use districts.

d. Support property and estate tax relief measures which assess long-term agriculture at farm use value.

e. Support reduction and elimination of special district boundaries in agricultural areas where urban services are not planned.

f. Within commercially viable agricultural areas, encourage only land uses which are compatible with agriculture and maintain a list of compatible uses allowed within agricultural preserves.

g. Consider the availability and financing of public services and utilities in any decision to convert an area from agricultural to nonagricultural uses. This information should be documented in special study reports.

h. Establish necessary buffers between agricultural and/or other uses.

i. Provide information on viable alternative crops through the Agricultural Extension Service and other sources.

j. If the need arises, encourage relocation of agricultural operations within the County rather than to areas outside the County.

k. Provide improved agriculture-related services in agricultural areas.

l. Designate agricultural land use districts on the Land Use Maps and agricultural preserves on the Resource Overlay Maps.

m. Encourage adequate, inexpensive water distribution systems and water conservation for agricultural lands through the following:

i. Support continuation of the water price differential between agricultural and urban uses where water conservation measures are used.

ii. Support the use of certain non-potable water sources for agricultural purposes (e.g., some treated wastewater can be used for agriculture).

n. Encourage expansion of agriculture in underutilized areas through actively promoting the establishment of agricultural operations in prime and potentially prime agricultural lands which have been identified in the Desert region where water is available in sufficient quantity. These lands shall be identified on the Resource Overlay Map.

o. Encourage agricultural use of commercially productive agricultural lands; discourage city sphere of influence extensions into areas containing commercially productive agricultural lands.

p. Maintain the existing Chino Agriculture Preserve boundaries as long as the dairy industry remains viable. Cooperate with the Southern California Agricultural Land Foundation regarding the use of Proposition 70 funds to purchase agricultural land in Chino Agricultural Preserve and maintain it as open space, even if farming ceases.

q. Fund detailed consultant studies of the following joint public/private financing options for infrastructure improvements, especially flood control, utilizing results of the 205J and River Basin Studies:

i. Cities of Ontario and Chino participation

ii. Assessment District Acts of 1911, 1913 and 1915

iii. Community Facilities District

iv. PL-566 project monies and Soil Conservation Service

v. County General Fund

vi. Flood Control District Budget

vii. Dairy Industry Associations

viii. F.A.A. Chino Airport related funding

ix. Land Development Drainage fees (area wide)

x. Other bonding sources

xi. Not-for-profit corporation

r. Promote the following activities to help solve existing dairy industry problems, especially waste management:

i. Cooperation between the Water Quality Control Board, County enforcement agencies and Resource Agencies with regard to allowing higher herd densities in exchange for waste management system improvements for those interested dairy owners.

ii. Assist in the implementation of programs developed by Soil Conservation Service and UC Extension Service as part of the River Basin Study and those through the Resource Conservation District.

iii. Assist the Santa Ana Watershed Project Authority and Chino Basin Municipal Water District in the utilization of the non-reclaimable waste line (brineline) by the dairy industry.

iv. Encourage and assist in the location of manure recycling and energy conversion operations.

s. Attempt to incrementally purchase and land bank those properties whose owners do not wish to stay in the Preserve, such properties to be made available for agriculture purchase or lease through various funding sources such as County funding, not-for-profit corporations and dairy interest groups.

t. Coordinate a capital improvement policy program/plan that directs development into existing urban centers and away from agriculture.

u. Coordinate and utilize regional planning agency programs/funding (Southern California Association of Governments and San Bernardino Associated Governments) for protection of agriculture and directing growth.

v. Promote the formation of a dairy action group (possibly a not-for-profit corporation) with representatives from various interest associations (Milk Producers Council, Ag Cooperative Extension, Agricultural Commissioner, etc.) for the purpose of promoting consensus and

cooperation in an investment management package to assist the dairy industry through pooled resources. The group is also needed to communicate and promote programs to the public and other dairymen.

SA-3 Because agriculture involves disturbance of the surface features via tilling and other mechanisms it can also result in erosion, fugitive dust, and scarring of the landscape, these consequences for unnecessary nuisance and visual impact can be reduced through the following:

a. Highly alkaline soils present special problems for all plant species and should generally be avoided. Desert playas and lake beds are not suitable for agricultural uses which involve growing of crops and irrigation.

b. Large areas of the desert region are most appropriately used for grazing and other less intensive agricultural uses. Agricultural activities within the California Desert Conservation Area, which involve irrigation, should only be allowed within the Class L and Class M designated areas.

c. Support the efforts of the Soils Conservation Service and seek their input when reviewing agricultural operations to assure the best soils management practices are implemented.

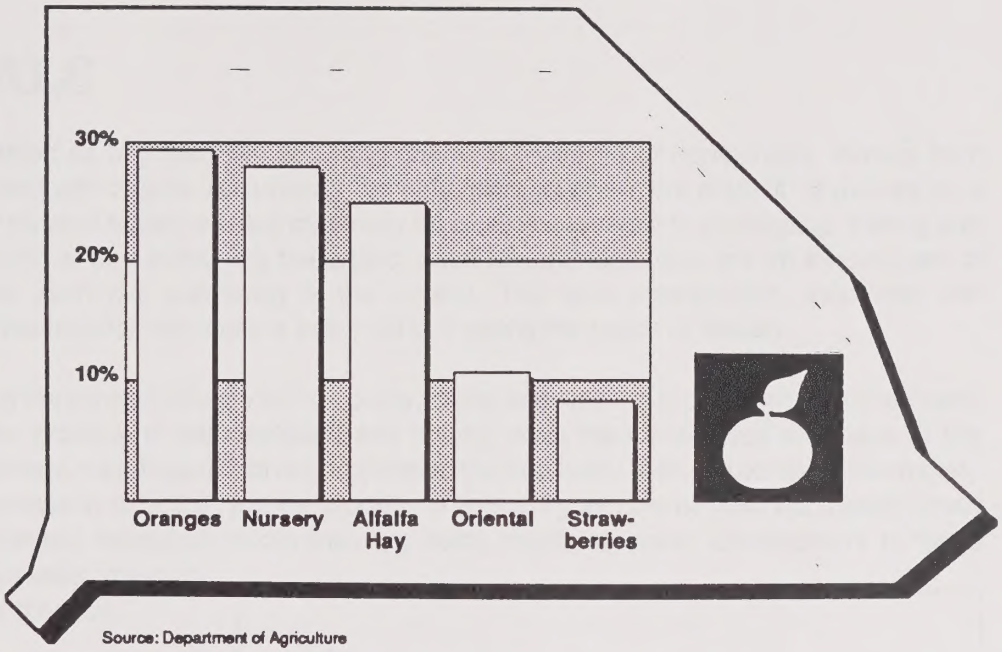
d. Utilize easements and other conveyances for development which propose to locate proximate to agricultural operations to minimize future nuisance complaints.

SA-4 Because agricultural activities tend to be larger in terms of acreage to remain economically viable, and the creation of parcels results in creating road networks which discourage agriculture, larger parcel sizes are required.

a. The minimum parcel size for agricultural districts within the Valley portions of the County should be 10 acres.

b. The minimum parcel size for agricultural districts in the Desert portions of the County should be 40 acres outside the CDCA boundaries and 160 acres within the CDCA boundaries.

The top 5 crops produced in the County

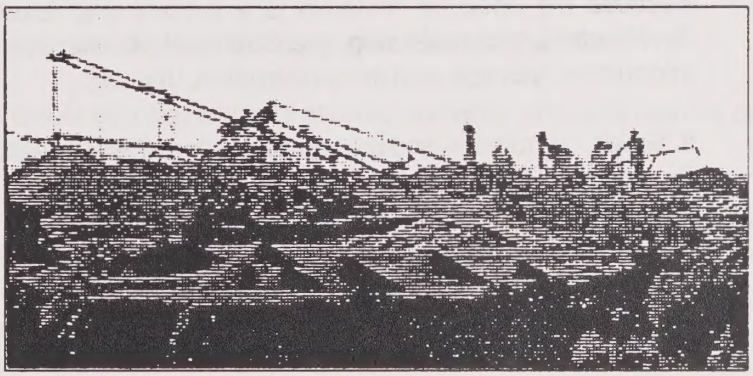


Source: Department of Agriculture

7. MINERALS

Minerals are defined as any naturally occurring chemical elements or compounds, formed from inorganic processes and organic substances. Minable minerals or an "ore deposit" is defined as a deposit of ore or mineral having a value materially in excess of the cost of developing, mining and processing the mineral and reclaiming the project area. Mineral resources are an integral part of development and economic well-being of the County. The wise conservation, extraction and processing of those mineral resources is essential to meeting the needs of society.

The importance of the mineral industry to the County, State, and nation is growing along with demand for minerals. The increase in transportation and energy costs have increased the value of the County's mineral resources, because of our proximity to the Southern California consumption region. Even with the increase in recycling, a large supply and demand gap must be filled with newly-mined minerals. New mineral resources discoveries are being made; however, development of those resources into operating mines is a long and costly process.



A large rockcrushing operation; Highland

While most land uses have options to site development, mineral extraction is limited to sites where the minerals naturally occur. Mineral deposits are controlled by geological conditions and the extraction of minerals is affected by the availability and cost of manpower, equipment, energy, water, transportation, technology, potential conflicts with other resources, and by government regulations. A positive mineral resource management policy will reduce our dependence on foreign sources for mineral resources and help reduce the cost of minerals imported from other areas of the country. Mineral resources should be protected and managed, or they will be lost due to the encroachment of incompatible land uses. As these resources are discovered, they must be recognized, mined, or protected for future use.

Since mineral deposits are found in nearly all regions and environments in the County, mining must take place in diverse areas, in which geologic, topographic, climatic, biological and social conditions differ significantly. Mining operations and reclamation plans must vary accordingly. Mining operations should be designed and reviewed to allow maximum extraction of mineral resources, yet assure minimal disturbance to the environment. Reclamation plans may vary throughout the different regions and environments within the County, but still must contain provisions for the optimal extraction of mineral resources as well as the protection and subsequent beneficial uses of the mined lands.

There are many naturally occurring mineral resources identified in San Bernardino County. The State Department of Conservation, Division of Mines and Geology is also in the process of identifying lands within the County with the potential for mineral resource recovery. It is in the best interest of the County to recognize these resource areas and areas with the potential for resources on the Resource Overlay Maps of the General Plan. Compliance with the requirements of the California Surface Mining

and Reclamation Act of 1975 (SMARA) and conservation of these resources will assure that they are available for future generations. Mineral Resources Zones are found on the Resource Overlay Maps which will be manually kept until they are available on the computerized base.

GOALS

C-53 Mineral resources must be conserved for future beneficial uses, and the ability to recover them must be preserved and protected, to assure that adequate supplies of such resources are available to meet the future needs of the County, the consumption region and the nation. Mineral resources that are designated or classified by the State Mining and Geology Board or the State Geologists are considered regionally significant. Regionally significant mineral resources must be preserved, protected and used for consumption by the County, the region and the nation.

POLICIES/ACTIONS

MR-1 Because the need for minerals is a present and future requirement for the County's development and well-being, the County shall establish a Countywide mineral resource information, storage, and retrieval system, that will:

a. Solicit, coordinate, and acknowledge lands Designated by the State Mining and Geology Board and Classified by the State Geologist.

b. Incorporate the mineral classification or designation information, including the maps, when they are completed by the State Mining and Geology Board and the Division of Mines and Geology, including new and updated information.

c. Delineate Classified, Designated or Identified Mineral Resource Areas on the Resource Overlay Maps of the General Plan.

d. Recognize and protect areas within San Bernardino County that show or have proven to have significant mineral resources and protect their access.

e. Efforts by local jurisdictions to annex areas where significant mineral resources are identified should be encouraged if they include both the mineral resource and a buffer area. This buffer is the area required to protect mineral resources and access from incompatible land uses proposed within one-half mile of rural and one quarter mile, (or where possible and future planning would allow, one-half mile) of urban mineral resource areas or mining operations. (Urban and rural areas are defined in Section II-D-6, Land Use/Growth Management)

f. Maintain and coordinate files and records to be kept with the Office of Planning.

MR-2 Because mineral resources vary in type, quality and quantity, they shall be identified according to the threshold values in SMARA and the following criteria for Mineral Resource Zones (MRZ), Scientific Resource Zones (SZ) and Identified Resource Areas (IRA). The MRZ and SZ categories used by the State Geologist in classifying the State's lands, the geologic and economic data and the substantiation upon which each unit MRZ or SZ

assignment is based, shall be presented in the land classification information transmitted by the State Geologist to the Board of Supervisors for the following areas:

a. **MRZ-1**: Adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This zone shall be applied where well-developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is nil or slight.

b. **MRZ-2**: Adequate information indicates that significant mineral deposits are present or it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood of significant mineral deposits is high.

c. **MRZ-3**: Containing deposits whose significance cannot be evaluated from available data.

d. **MRZ-4**: Available information is inadequate for assignment to any other zone.

e. **SZ Areas**: Containing unique or rare occurrences of rocks, minerals or fossils that are of outstanding scientific significance shall be classified in this zone.

f. **IRA**: San Bernardino County or State Division of Mines and Geology Identified Areas where adequate production and information indicates that significant minerals are present.

MR-3 Because the County desires to protect significant mineral resources and their access ways, the following shall be applied;

a. Buffers shall be provided between mineral resources (including access routes) and incompatible land uses as described in Policy MR-1, e. These buffer zones shall be identified on the Resource Overlay Maps. New mineral and nonmineral development in these zones shall be designed and reviewed according to the compatibility criteria specified in this policy (MR-3, d-ii).

b. Review land development and mining proposals near potentially incompatible land uses with the goal of achieving land use compatibility between potentially incompatible uses.

c. Protect existing mining access routes by giving them priority over proposed alterations to the land, or by accommodating the mining operations with as good or better alternate access, provided the alternate access does not adversely impact proposed open space areas or trail alignment.

d. Use land use compatibility categories defined as:

i. **Incompatible** - Require a high public or private investment in structures, land improvements and landscaping and which would prevent mining because of the higher economic value of those lands and their improvements. Examples of this

category are: both high and moderate density residential development with high unit value, public facilities, non-mining related industrial and commercial operations.

ii. **Compatible** - Require low public or private investment in structures, land improvements and landscaping and which would be amenable to mining because of low economic value of land and improvements. Examples of this category are: other mining operations, very low residential development (i.e., 1 dwelling unit per 10 acres where an adequate buffer is present as defined below), low unit value, extensive industrial, recreational (public/commercial), agricultural, silvicultural, grazing, and open space.

iii. **Interim** - Require temporary structures, land improvements and landscaping of limited useful life and which from an economic and political standpoint can be converted to mining at the end of that limited life. The period of interim use should be compatible with the orderly and timely production of mineral resources and the useful life of the improvements.

iv. **Buffer** - Provide sufficient distances or barriers between mining and incompatible land uses. Such barriers would be utilized to mitigate noise, dust, vibration and the visual impacts of mining. These barriers would also be designed to mitigate the impacts to public health and safety.

MR-4 Because the development of mineral resources occurs in diverse areas, where geologic, topographic, climatic, biological and social conditions differ significantly, the County shall:

a. Adopt policies and procedures that allow for the permitting, mining and processing of mineral resources by developing land use planning and standard criteria for the establishment and management of mineral resource areas and mining operations.

b. Require mining operations to have approved Mining/Reclamation Plans in compliance with the Public Resources Code; the Surface Mining and Reclamation Act of 1975; the State Administrative Code, Natural Resources, Mining and Geology; State Mining and Geology Board; and the San Bernardino County General Plan and Development Code prior to the start of operations.

c. Require the development of mining operations to be established so that:

i. Adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses.

ii. The protection and conservation of minerals are encouraged, while giving consideration to values relating to recreation, watershed, wildlife, range, forage, aesthetic enjoyment and development.

iii. Residual hazards to the public health and safety are eliminated.

iv. The development of the mining project minimizes and manages its impacts to a well-planned, defined area.

d. Require proposed mining operations to provide a plan of operation that incorporates good mining practices, engineered designs and a mine life forecast.

e. Require proposed mining operations to provide a plan for reclamation of the site that incorporates methods of compliance monitoring, assurance, and maintenance of the plan.

MR-5 Because San Bernardino County needs to support mineral extraction and processing operations, the County shall:

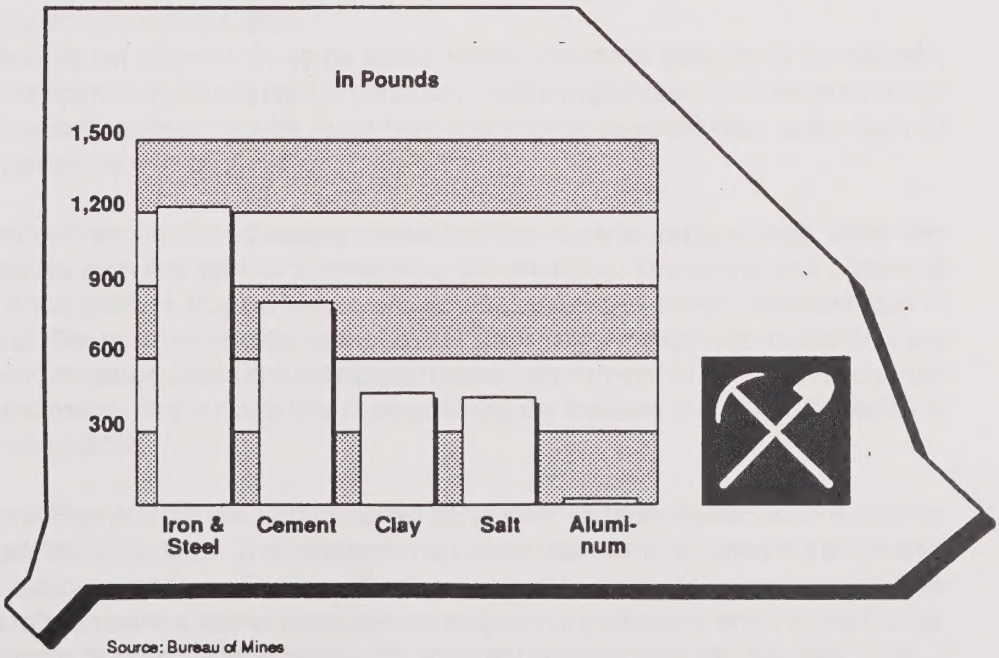
a. Adopt a Mining/Reclamation application form that requests information necessary to assure compliance with the requirements of SMARA and the County.

b. Provide for natural resource management in the development of Subregional and Specific Plans.

c. Provide methods and procedures to review Mining/Reclamation Plans and methods for the extraction and processing of mineral resources. Assure adequate recovery of mineral resources and provide for the reclamation of mined lands before issuing permits.

d. Provide for the monitoring of mining operations for compliance with the established operating guidelines, conditions of approval, and the reclamation plan.

Types and amounts of minerals used per capita each year in the United



Source: Bureau of Mines

D. MAN-MADE RESOURCES

Man-made resources are defined as those characteristics and services, facilities and activities for which man is directly responsible. For the purposes of this plan these include:

1. Wastewater Systems
2. Solid Waste Management
3. Transportation/Circulation
4. Energy/Telecommunications
5. Housing/Demographics
6. Land Use

Generally, Man-made Resources describe who County residents are, how they are housed, the services they use, what can be done with the land, and what infrastructure is needed to support development.

Infrastructure Needs

Many rapidly growing areas of the County have found it difficult to expand infrastructure fast enough to keep up with new development. Development places demands on all public services. It is desirable that the infrastructure for water, sewer, drainage and roads is in place before urban development is permitted. The pace of growth can be controlled by limiting capital investment in these facilities. For example, new subdivisions are required to tie into trunk lines leading to sewage treatment plants. If treatment capacity of either sewer or water is insufficient, then development is not allowed. In some cases where treatment capacity is inadequate, private developers may be required to construct treatment plants to serve large developments. Because facilities require huge front-end capital expenditures, some form of municipal financing may be needed.

The network of man-made and publicly owned facilities, such as roads, streets, water and sewer facilities form the internal framework of communities. The timing and pattern of installing these facilities (capital improvements) will play a part in the implementation of the General Plan by impacting the distribution of land uses. Although capital facilities are built to accommodate present and anticipated needs, some (most notably water and sewer facilities and roads) play a major role in determining the location, intensity, and timing of future developments.

The General Plan and the background appendix identify existing capital facilities and the need for additional facilities. This discussion of capital facilities is included in the General Plan (per Government Code Sections 65302 (a), (b), (e)). Among the statutory functions is to "Annually review the capital improvement program of the County and the local public works projects of other local agencies for their consistency with the General Plan..." (Government Code Section 65103 (c)). Local governments may underscore their interest in public services and facilities by adopting an optional public facilities element (Govern-

ment Code Section 65303). The man-made resource section of the General Plan, along with those portions of other sections dealing with fire protection facilities, flood control facilities emphasize the County's interest in managing growth to ensure that all land uses have adequate public services and facilities.

Each year, departments within the County and all other local governmental agencies (including school districts and special districts) constructing capital facilities must submit a list of proposed projects to the county's planning agency (Government Code Section 65401). The planning agency of the County must then review the projects for conformity with the General Plan in those areas of County jurisdiction.

In lieu of considering individual projects or only those projects to be undertaken in a single year, the County prepares and annually revises a capital improvement program (CIP). The CIP projects annual expenditures for acquisition, construction, rehabilitation, and replacement of public facilities such as sewer and water, highway improvements, street lights, traffic signals, parks, sheriff and fire facilities, and other public facilities. The CIP must be consistent with the General Plan. In rapidly developing areas, it can help shape and time growth according to adopted policies

The housing element requires that capital facilities be made available to future housing sites. The implementation program of the housing element must identify adequate sites which will be made available through appropriate zoning and development standards and with public services and facilities needed to facilitate and encourage the development of a variety of types of housing for all income levels (Government Code Section 65583 (c)). Obviously, if an area lacks sewer and water service or adequate roads, it will not be available for high density residential development until such improvements are installed.

Many federal grant programs, including the Clean Air Act, the Water Pollution Control Act Amendments, the Housing and Community Development Act of 1974, the Public Works and Economic Development Act of 1976, and the National Historic Preservation Act of 1966, now require or encourage the consistency of federally assisted capital projects with local, regional, and state plans. For example, federal law (Section 176 of the Clean Air Act) requires that the population projections used in planning capital facilities conform to the assumptions contained in the regional air quality management plan adopted as part of the State Implementation Plan (SIP) when federal funding or approval is sought. The federal government will not support projects which fail to comply with the SIP and gives priority to implementing those programs which conform to the SIP. Clearly, it makes sense for local government to review regional and state plans and to incorporate applicable assumptions and projections into the local general plan.

Man-made resources, including public services/facilities and capital improvements are also important in a regional sense. The growing interrelatedness of planning issues among local governments applies directly to local capital improvement projects. The location of major roads, sewer facilities, water trunk lines, and other facilities within the County can impact communities and cities both within and adjacent to the County by encouraging or deflecting the direction of growth. Local decisions regarding capital improvements may in turn impact the planning assumptions and projections of neighboring jurisdictions. This is

another reason why it is important that local government coordinate their general plans with the plans of their neighbors and special districts.

Goals

D-1 *Population forecasts correlated with supporting infrastructure, housing and other land uses.*

D-2 *Monitoring of the development and utilization of man-made resources.*

D-3 *The continual integration of new data on man-made resources into Land Use and Overlay maps and review of land use proposals.*

D-4 *Equitable plans and justification of land use decisions through data, analysis and findings.*

1. Wastewater Systems

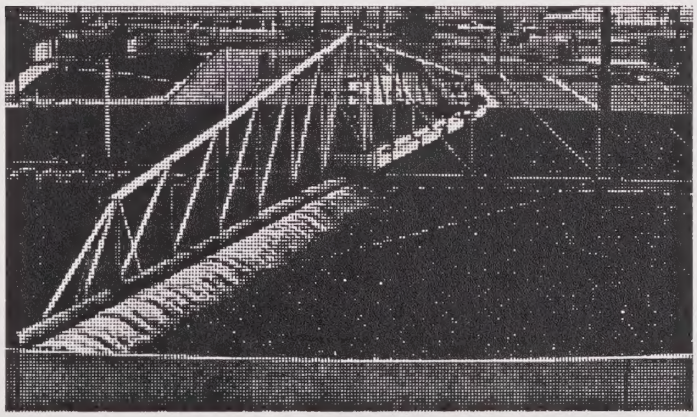
Wastewater collection, treatment and disposal is one of the many public services provided by various units of local government. Where public collection and treatment of wastewater is not available, other methods are required such as septic systems, package wastewater treatment plants, or alternative systems. The treatment of wastewater is vital to developed and developing urban areas, and is vital in less developed rural areas for reasons of public health and the protection of ground and surface water quality.

The operation of community or regional wastewater collection and treatment systems is exclusively undertaken by public agencies. Public wastewater collection and treatment is carried out by a combination of:

- Regional wastewater agencies which serve several cities and communities
- City-operated collection and treatment facilities serving the area within the city and sometimes adjacent cities and unincorporated areas
- Special districts serving unincorporated communities

There are 22 operating public wastewater treatment facilities located throughout the County allowing most urban areas to be served by sewers. Exceptions include the communities of the South Desert (Morongo Valley, Yucca Valley, and Joshua Tree) and the city of Twentynine Palms.

The State **Regional Water Quality Control Boards (RWQCBs)** are constantly reviewing their discharge requirements for wastewater. Revised requirements could have a significant impact on the development potential of land within the County and on the user fees charged by wastewater collection and treatment system operators.



A 'trickling pond' at the Chino Basin Municipal Water District, Regional Plant #1; Chino

San Bernardino County faces some major challenges in the continued provision of adequate wastewater collection and treatment. As demands for sewer service increase, providing an adequate level of wastewater treatment will become increasingly difficult. New State water quality requirements and wastewater treatment limitations may have significant impacts on development potential and costs. In order to coordinate land use planning with wastewater facilities, many agencies at state, regional, and local levels must successfully interact and exchange information. Interagency coordination is a problem due to the variety of state, regional and local agencies and independent districts involved.

The County's ability to absorb growth has been facilitated by the ability of wastewater agencies to respond to demands for service. There is a need to continue to expand existing intergovernmental coordination in order to correlate land use planning with wastewater facilities. Wastewater agencies often experience difficulties in their planning efforts due to unreliable or constantly changing growth forecasts for their service areas. The County needs to be aware of the abilities of collection and treatment systems for both the existing and projected population's domestic wastewater. Industrial, commercial, and agricultural wastewater may be incompatible with the treatment of domestic wastewater and may require separate collection and treatment.

The density of development that can be permitted in areas not served by wastewater collection and treatment facilities is an issue. There are many on-site sewage disposal systems (septic tanks and package treatment plants) in areas with no wastewater collection and treatment facilities. There is a requirement for "dry sewers" in some areas not currently served by collection and treatment facilities.

The location of public treatment facilities in both incorporated and unincorporated areas are shown on the General Plan Infrastructure/Overlay maps, which are further discussed in Section II-D, "Land Use/Growth Management." The County's public sewage treatment facilities, including those located in and serving incorporated city areas, are listed below. The listing includes two proposed treatment facilities in the West Valley planning area. Both of the proposed facilities are within the Chino Basin Municipal Water District, an area experiencing rapid growth. For further information see the Wastewater section of the Background Appendix.

Sewage Treatment Plants/Facilities

1. City of Colton
2. City of Redlands
3. City of Rialto
4. City of San Bernardino
5. Yucaipa Valley Water District
6. Chino Basin Municipal Water District, Regional Plant No. 1, Ontario
7. Chino Basin Municipal Water District, Regional Plant No. 2, Chino
8. Chino Basin Municipal Water District, Regional Plant No. 3, Fontana
9. Chino Basin Municipal Water District, Regional Plant No. 4, (proposed), Rancho Cucamonga
10. Chino Basin Municipal Water District, Carbon Canyon Plant (proposed), Chino
11. Lytle Creek, County Service Area 70 S-3
12. Big Bear Regional Wastewater Agency
13. Crestline Sanitation District, Cleghorn Treatment Plant
14. Crestline Sanitation District, Houston Creek Treatment Plant.
15. Crestline Sanitation District, Seely Creek Treatment Plant
16. Lake Arrowhead Community Services District, Willow Creek Treatment Plant
17. Lake Arrowhead Community Services District, Grass Valley Wastewater Treatment Plant
18. Running Springs Water District
19. Baker Community Services District

20. City of Barstow
21. Helendale, County Service Area 70B
22. Trona/Pioneer Point, County Service Area 82
23. Victor Valley Wastewater Reclamation Authority, Oro Grande
24. City of Needles

Goals

The County shall encourage and participate with the local responsible wastewater authorities to:

D-5 *Require wastewater collection and treatment systems which are consistent with the protection of public health and water quality.*

D-6 *Promote activities/measures that facilitate the reclamation and reuse of wastewater.*

D-7 *Cooperate and coordinate with all governmental agencies, including the RWQCBs, to apply measures which will prevent surface and groundwater pollution and establish uniform standards for wastewater discharges.*

D-8 *Plan and construct new wastewater treatment and collection facilities on the basis of the County's adopted growth forecast.*

D-9 *Provide for the development of wastewater collection and treatment facilities for all projects within Improvement Level 1 and 2 in coordination with the appropriate serving agencies. This may include the establishment of fees, assessments or alternative funding measures.*

Policies/Actions

WW-1 Because the proper and safe disposal of sewage, septage, and sludge is vital to public health, nuisance prevention, and ground and surface water quality, the County Department of Environmental Services (DEHS) will continue to work with local responsible wastewater authorities and verify that suitable arrangements have been made to safely dispose of sewage, septage, or sludge for all new development (subdivisions and conditional use permits/site approvals).

WW-2 Because community sewerage systems are the preferred method of wastewater collection, and whenever mandated by the appropriate RWQCB or County DEHS, dry sewers (standard sewer lines to be used for future connection to a community sewer system) or appropriate financial arrangements shall be provided per the requirements of the serving wastewater agency (if any) for proposed subdivisions of five (5) or more lots and conditional use permits when any of the following conditions exist:

a. The wastewater collection agency has a master plan and the proposed project lies within 600 feet of a sewer line to be constructed within 10 (ten) years.

b. The wastewater collection agency has a sewer line within 600 feet of the proposed project but has refused service because the project is currently outside the boundaries of the agency.

c. The appropriate RWQCB requires dry sewers as a condition of the waste discharge permit.

d. In sphere of influence areas, special standards shall apply as stated in policy LU-9.

As alternatives to the above, a recorded participation agreement or payment to a sewer assessment district may be allowed if approved by the sewering agency.

WW-3 Because there are areas in the County where it is unlikely that community sewerage systems will be installed, **Package Wastewater Treatment Plants** (PWTPs) may be approved by the appropriate RWQCB, the local wastewater/sewering authority (if any), and the County DEHS subject to the following:

a. The proposed project site must be located in an area approved by the local wastewater/ sewering authority, DEHS and the appropriate RWQCB.

b. PWTP operators in charge of operation and maintenance shall be State certified.

Installation, maintenance, and operation must meet DEHS, Office of Building and Safety, local wastewater/sewering authority and RWQCB standards.

WW-4 Because there is a need to regularly inform and educate the public on the need, methods, and timing of septic tank system maintenance, the County DEHS shall:

a. Publish educational materials on proper septic tank maintenance and distribute them to septic tank owners when requested.

b. Utilize septic tank maintenance districts where feasible to ensure an adequate level of maintenance.

WW-5 Because community sewerage systems are the preferred method of wastewater collection, connection to the community sewerage system shall be required for any proposed development or subdivision of land within a sewer or sanitation district. In areas where sewers are required by the appropriate RWQCB and a sewer or sanitation district does not exist, a district and appropriate assessments shall be established. Exceptions may be approved subject to review and approval by the County DEHS, the appropriate Regional Water Quality Control Board, and the wastewater agency (for Package Wastewater Treatment Plants, individual on-site and multiple owner septic systems, holding tanks, and experimental systems).

WW-6 Because the development approval process may be dependent upon the location and size of wastewater facilities and the timing of their use, the County shall:

a. Cooperate with the local wastewater/sewering authority to consider the effect of development proposals and whether or not they should include the phased construction of wastewater treatment facilities.

b. Actively work with wastewater agencies to ensure planned capacity increases in locations where sewage facilities are approaching capacity.

c. Monitor and provide information to the local wastewater/sewering authorities on a continual basis, compile annual reports on the capacity and condition of wastewater collection and treatment systems, and develop contingency plans for sewage management.

d. Develop a systematic ongoing assessment of regional and local wastewater facility needs and capabilities to serve planned land uses as defined in the General Plan.

e. Cooperate with local wastewater/sewering authorities to monitor future development to ensure that development will proceed only when sufficient capacity or approved alternative wastewater treatment systems can be provided.

f. Cooperate with Special Districts (Board-governed, independent wastewater agencies) and cities to assist in the planning and construction of sewage collection and treatment facilities on the basis of the County's adopted growth forecast.

g. Cooperate to provide the consistency of wastewater facilities with the Capital Improvement Programs of the County and other public agencies pursuant to Government Code Section 65403.

WW-7 Because the safe disposal of sludge is an area of major concern for reasons of public health and the protection of water quality, the County shall:

a. Coordinate and cooperate with neighboring jurisdictions and interested agencies in efforts to explore the feasibility of sludge use and disposition.

b. Control importations of sludge to critical groundwater basins and food production areas, and assure appropriate siting and proper and safe sludge land-spreading practices as reviewed and approved by the County DEHS.

c. Ensure the coordination of the County Land Management Department, DEHS, and the Solid Waste Management Department, in the development and implementation of a sludge management program through annual review for consistency between the General Plan and the County Solid Waste Management Plan and associated programs.

WW-8 Because water resources are limited, and the use of reclaimed wastewater and other **nonpotable** water will play an important part in conserving water supplies, the County shall encourage the local wastewater/sewering authority to:

a. Require water reclamation systems and the use of reclaimed wastewater and other non-potable water to the maximum extent feasible for:

   i) Agricultural uses
   ii) Industrial uses
   iii) Recreational uses
   iv) Landscape irrigation
   v) Groundwater recharge projects

b. Apply water conservation and water reuse (reclamation) measures which are consistent with policies/regulations on water quality.

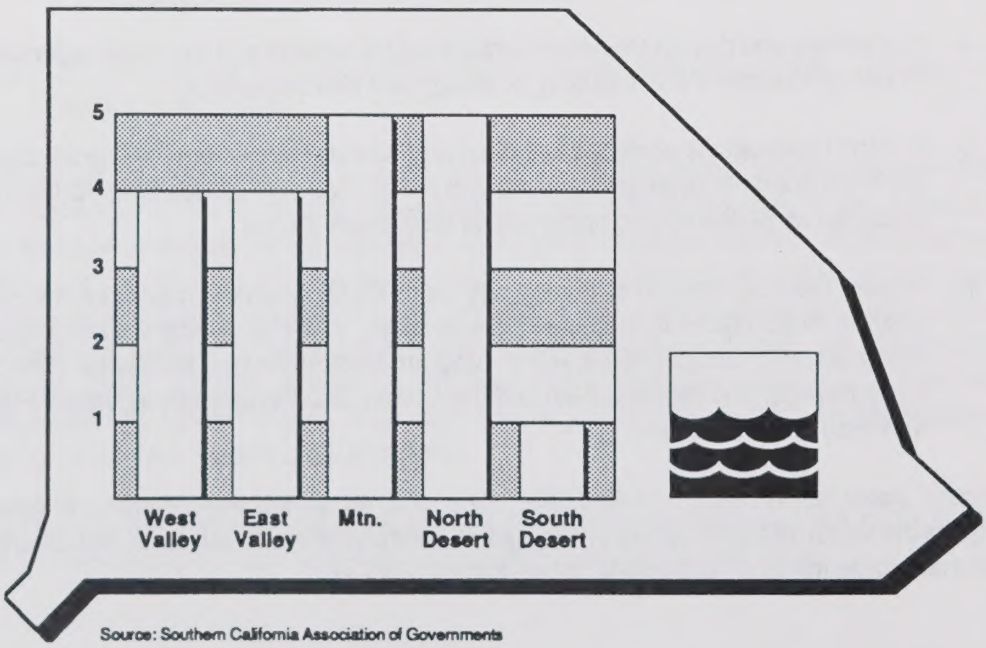
WW-9 Because long-term local or regional area-wide commitments to wastewater collection and treatment services are necessary for the orderly development of urban areas, the County shall:

a. Include wastewater collection and treatment facilities as one of the required services in the Improvement Level (IL) system which is part of the General Plan and as designated on the Infrastructure Overlay Maps.

b. Support the local wastewater/sewering authority in implementing wastewater collection and treatment facilities when and where required by the appropriate Regional Water Quality Control Board and County DEHS.

WW-10 Because cooperation with the appropriate RWQCBs and local wastewater/sewering authorities is necessary to implement their requirements for new development utilizing subsurface disposal systems, the County shall act in accordance with Memorandums of Understanding with the appropriate regional or local authorities.

Number and locations of wastewater agencies in the County as of 1989



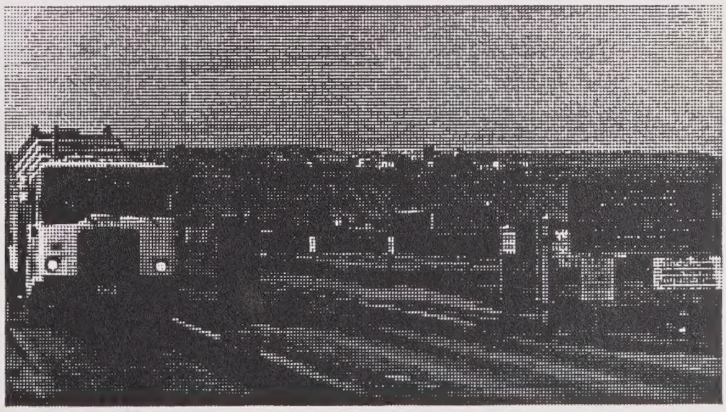
Source: Southern California Association of Governments

2. Solid Waste Management

Solid waste disposal is becoming a critical and often emotional concern for County residents. Approximately 3 million tons of solid waste are generated each year in San Bernardino County. The vast majority of this waste is disposed of at various **sanitary landfills** throughout the County. The County **Solid Waste Management** Department operates 26 waste disposal sites, and there are approximately fifty non-County disposal facilities. A major concern is that current projections of estimated life expectancy of Valley **landfills** indicate that they will be reaching capacity by the mid 1990's. Countywide, there is ample landfill capacity, but most sites are located in the Desert areas which are distant from most urban areas. In addition, desert residents and their representatives have voiced their opposition to the desert becoming a 'dumping ground' for waste generated in other areas.

The County is currently revising its Solid Waste Management Plan (CoSWMP) and, when completed in 1989/90, it will be consistent with but not a part of the General Plan. It will establish an integrated approach to solid waste management utilizing a variety of processes including source reduction, **recycling**, landfilling, **composting** and **resource recovery**. The current CoSWMP, adopted in 1986, is the primary planning document for solid waste management. State law requires that solid waste management plans be consistent with the general plan, and be updated every three years. Solid waste management policies in the General Plan are based on the current CoSWMP update effort; these policies will be revised as necessary to ensure consistency between the two documents. The CoSWMP is not a part of the General Plan.

Some concerns confronting the County are: a State mandated recycling program, waste-to-energy resource recovery and associated air quality issues, future landfill locations, and specific problem wastes such as tires, dairy wastes, shredded automobile plastic and vinyl (fluff), and sewage **sludge**. The public's opposition to new or expanded facilities will add to the complexity of long term solutions. A major issue to be faced in the relatively near future is to find additional landfill capacity or acceptable methods of management for the Valley area.



Activity at the Miliken Landfill; Ontario

Solid waste disposal practices have significant land use implications. Landfill and specialized waste disposal sites are not compatible with many other land uses. Urban growth has increased the need for waste management and disposal sites, while suitable areas for waste management facilities have diminished. With rising costs of waste disposal and increased value of recoverable materials, there has been renewed interest in waste recycling and resource recovery. However, environmental and social constraints have

blocked widespread development of resource recovery programs in the County. Because of rapid urban growth and the subsequent shrinking of existing landfill capacity, there is a need to establish an integrated solid waste management approach to waste disposal. In addition to the expected refuse generated by urban development, the presence of a concentrated dairy industry in the West Valley creates a unique solid waste management challenge. Dairy wastes generated by approximately 156,000 cows equals the volume of solid waste produced by a city of one million people on a daily basis. New methods for disposal or alternative uses for dairy wastes must continue to be explored.

In the Mountain area, special considerations are necessary as escalating population and visitor levels present serious problems in solid waste management. One such unique urban related waste problem is the annual cleanup of leaves. These bulky wastes can consume a significant amount of landfill space and represent up to 35% of the waste stream in certain seasons.

Because of its mostly undeveloped expanse, the Desert area is viewed by many as an ideal location for the disposal of solid and hazardous waste materials. In order to conserve the fragile desert environment and accommodate the needs of waste disposal, management practices must take into account the desires of Desert area residents.

The location of existing waste disposal sites are shown on the General Plan Infrastructure/Improvement Level (IL) Maps; these include both the County-operated sites and non-County sites. Inactive and closed waste disposal sites are also shown. Future waste disposal sites will be shown when proposals go through the necessary preliminary investigation procedures as implemented by the Departments of Environmental Health Services and Solid Waste Management. Listed below are the waste disposal sites shown on the above mentioned maps. (For further information see the Solid Waste Management section of the Background Appendix and the CoSWMP).

Waste Disposal Sites

County Operated Nonhazardous **(Class III)** Sanitary Landfill Facilities:

1. Adelanto (inactive)
2. Apple Valley
3. Baker
4. Barstow
5. Big Bear
6. Cajon, S.B. (inactive)
7. Colton
8. Daggett (inactive)
9. Fontana
10. Heaps Peak (inactive - transfer station operational)
11. Hesperia
12. Joshua Tree (inactive)
13. Landers
14. Lenwood-Hinkley
15. Lucerne Valley

16. Milliken
17. Morongo Valley
18. Newberry
19. Parker Dam
20. Phelan
21. San Timoteo
22. Trona-Argus
23. Twentynine Palms
24. Victorville
25. Yermo
26. Yucaipa (inactive)
27. Duncan Canyon (future candidate site)
28. Cleghorn Canyon (future candidate site)

Non-County Disposal Facilities (Class III unless indicated as unclassified)

1. Agua Mansa Landfill, Rialto
2. Black Meadow Landing Resort (closed)
3. Cal-Trans/Essex Disposal Site(closed)
4. Cal-Trans/Halloran Rest Area, Interstate 15 (closed)
5. Cal-Trans/Mountain Pass Disposal Site, Interstate 15 (closed)
6. Cal-Trans/Wheaton Rest Area Disposal Site, Interstate 15 (closed)
7. California Portland Cement/Baxter
8. California Portland Cement/Colton
9. California Portland Cement/Superior Site
10. China Lake Naval Weapons Center/E.O.D. #1 Disposal Site
11. City of Needles Landfill
12. City of Rialto Landfill
13. City of Redlands/California Street Landfill
14. City of Barstow/Brine Spreading Area (closed)
15. Conrock Claremont Disposal Site, Unclassified
16. Fort Irwin Road Solid Waste, Barstow
17. Fort Irwin National Training Center Landfill
18. Goldstone Disposal Site
19. Holliday Sanitary Landfill, Rialto
20. Hubbs' West Seventh Street Disposal Site, San Bernardino
21. Iron Mountain Pumping Plant Disposal Site
22. Kaiser Steel Corp., Fontana, Unclassified
23. Kaiser/Gypsum Cushenberry, Lucerne Valley
24. Kaiser/Gypsum Ground Raw Materials, Lucerne Valley
25. Kaiser/Gypsum Dust Dump, Lucerne Valley
26. Kaiser/Gypsum Marble Canyon, Lucerne Valley
27. Kaiser/Gypsum Stripping Tailings, Lucerne Valley
28. Laird Construction Co., Montclair
29. Ludlow Solid Waste Disposal
30. Montecito Memorial Park, Colton
31. Munitions Residue Disposal Site, George AFB
32. Oro Grande/Alkali Dust Disposal Site

33. Oro Grande/Mack's Peak Waste Disposal Site, Unclassified
34. Oro Grande/Original Canyon Quarry Waste Dump, Unclassified
35. Oro Grande Sanitary Landfill
36. Oro Grande Shay/Klondike Waste Disposal #1
37. Oro Grande Shay/Klondike Waste Disposal #2, Unclassified
38. Oro Grande Sparkuhle Disposal #1, Unclassified
39. Oro Grande Sparkuhle Disposal #2, Unclassified
40. Oro Grande Sparkuhle Disposal #3, Unclassified
41. Pfizer, Lucerne Valley Disposal Site
42. Pfizer, Victorville Disposal Site
43. Scheerer Quarry Waste Site #1, Victor Valley area, Unclassified
44. Scheerer Quarry Industrial Waste Site #2, Victor Valley area, Unclassified
45. Scheerer Quarry Industrial Waste Site #3, Victor Valley area, Unclassified
46. Livingston-Graham, Redlands
47. Upland Landfill (closed)
48. Upland Rock Plant/Reclamation Fill, Unclassified
49. U.S. Marine Corps Disposal Site/Twentynine Palms
50. U.S. Marine Corps Disposal Site/Yermo Activity
51. Western Refuse Transfer Station, Chino

Goals

D-9 *A safe, efficient, economical, and integrated solid waste management system that considers:*

- *Agricultural, residential, commercial and industrial waste issues.*
- *The unique relationship of disposal issues and the conservation of the Mountain and Desert area's natural resources.*

D-10 *An integrated and balanced approach to solid waste management utilizing a variety of feasible processes, including source reduction, transfer, recycling, landfilling, composting, and resource recovery.*

D-11 *Maximize the use of existing sanitary landfills through expansions and consider the reopening of inactive landfills where there is useful capacity remaining.*

D-12 *Protect the viability of waste disposal sites from encroaching incompatible land uses.*

D-13 *A regional approach to solid waste management which coordinates with agencies at State level, including the California Waste Management Board, counties and cities within the Southern California region, and any other interested agencies or persons in the public or private sectors.*

Policies/Actions

SW-1 Because integrated and balanced methods and techniques are preferred for the management of solid wastes, the County shall:

a. Develop and implement integrated solid waste management policies and practices for current and future disposal needs in the County Solid Waste Management Plan (CoSWMP) which minimize adverse impacts on surrounding natural resources.

b. Operate solid waste disposal facilities in a manner which takes precautionary measures against ground and surface water pollution.

c. Assist Board-governed and independent Special Districts or other non-County agencies involved in solid waste disposal to minimize adverse impacts on surrounding natural resources.

SW-2 Because local environmental, social, and economic impacts and needs should be considered in regional solid waste management planning and practice, the County shall:

a. Participate in regional solid waste management studies.

b. Seek public involvement in the development of regional solid waste management recommendations.

c. Develop recommendations which have the least environmental, social, and economic impacts.

d. Encourage coordination with the cities and other affected agencies in seeking additional disposal capacity.

e. Consider utilizing closed landfill sites for public uses such as waste management or recycling facilities, park, recreation, or open space areas where feasible.

SW-3 Because the approval and siting of new sanitary landfills is a lengthy and costly process, the County shall extend the life of existing landfills to the maximum extent possible through the following measures:

a. Develop and implement methods to reduce the amount of wood and yard wastes being landfilled.

b. Assist the private sector wherever possible in developing methods for the reuse of **inert** materials (concrete, asphalt, and other building material wastes) which currently use valuable landfill space.

c. Source reduction and recycling to minimize waste at the point of manufacture or use.

d. The establishment of recycling programs, including those for household hazardous waste.

e. Waste-to-energy resource recovery projects where adverse environmental effects can be minimized.

f. Expansion of existing landfills and the reopening of inactive landfills when feasible.

g. Limit or restrict incompatible land uses which may encroach upon waste disposal facilities.

SW-4 Because the protection of public health and safety requires the ongoing assessment of both existing and closed waste disposal sites, the County shall develop a program to map the precise location of all waste sites (existing, inactive, and closed) on the County's automated mapping system, and create a database with information on air, soil, and water contamination and the type of wastes disposed of at each site as part of the Master Environmental Assessment.

SW-5 Because the recovery of recyclable materials and energy from solid wastes is an essential element in an integrated solid waste management program, the County shall:

a. Seek Federal and State funds for projects utilizing resource and material recovery processes.

b. Participate in resource and material recovery studies.

c. Assist private sector industry to increase resource and material recovery from solid wastes.

d. Continue recycling operations at County landfills; expand recycling operations to other landfills or resource recovery facilities.

SW-6 Because the safe disposal and/or utilization of dairy wastes and sewage sludge is crucial to the protection of ground and surface water quality, the County shall:

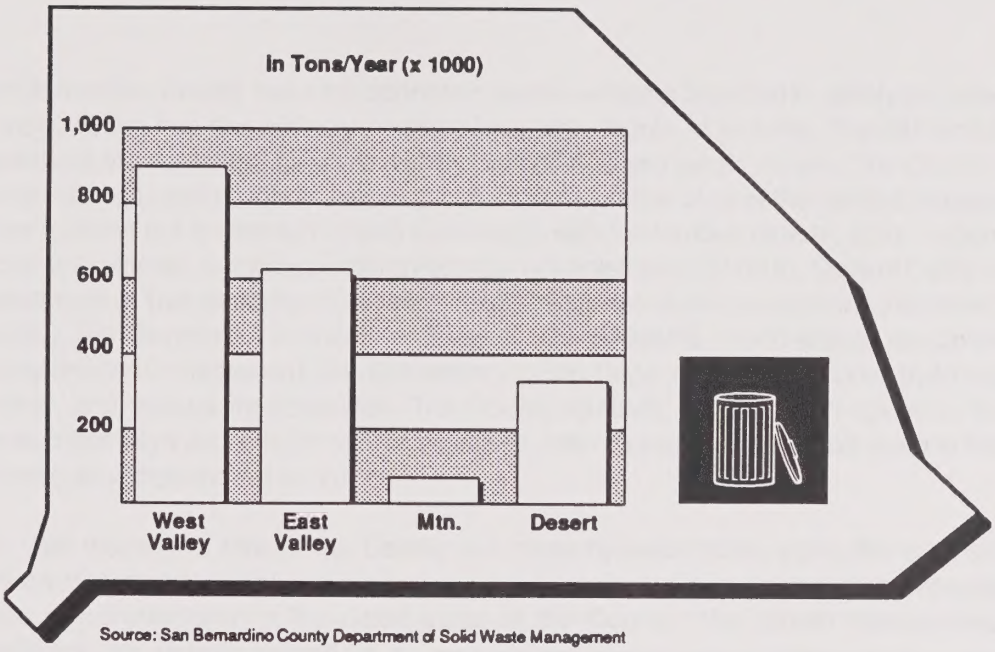
a. Explore new practices for disposal and utilization of dairy wastes and sludge.

b. Assist wherever possible in the development of new markets for dairy wastes and sludge, including but not limited to:

i) Expanded commercial applications.
ii) Conversion to natural gas.
iii) Combining with **biodegradable** wastes, forming compost and related agricultural products.
iv) Cooperation and coordination with other agencies and jurisdictions, including wastewater agencies, in efforts to explore the feasibility of simultaneous dairy waste and sludge disposal.

c. Establish a program for the management of sludge as stated in the Wastewater Policies/Actions section of the General Plan.

Volume of waste disposed in the County



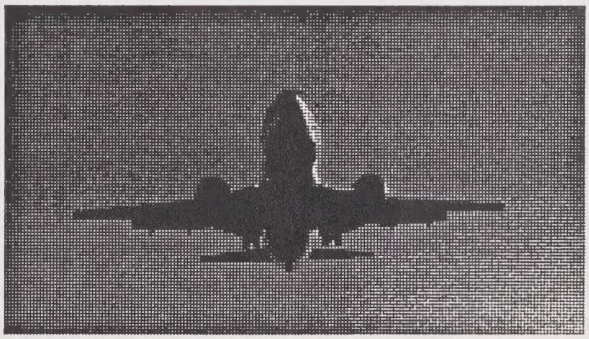
Source: San Bernardino County Department of Solid Waste Management

3. Transportation/Circulation

San Bernardino County has a transportation system which is intended to satisfy the needs of a population that has a lifestyle typified by a high degree of mobility. The demand for movement of people and goods is met by both private and public means. The County is not directly responsible for the planning and implementation of all of the various transportation facilities but is affected by and cooperates with the various federal, state, regional and local agencies, including: Federal Highway Administration (FHWA), State of California Department of Transportation (Caltrans), Southern California Association of Governments (SCAG), San Bernardino Associated Governments (SANBAG, which acts as the County Transportation Commission), San Bernardino County Department of Transportation/Flood Control, and various municipalities. The County routinely interacts with agencies that develop freeways and provide transit service in order to assist and support them in their planning and implementation efforts.

Airplane on its final approach to Ontario International Airport; Ontario

The vast majority of trips in the County are made by automobile, using the extensive network of freeways and arterial highways. Transit service is also an increasingly important mode of transportation in the urban areas of the County. The current transportation conditions are directly related to a combination of economic events and social changes that have occurred over the past 10 to 20 years. The County has grown from a collection of small cities and unincorporated communities with an agrarian economic base to an area with various centers of economic activity and a large and affluent population. The rapid growth in employment and population has increased the number of trips made on the freeway and **arterial** highway systems. This intense travel demand has reduced **levels of service** on significant portions of the system, causing severe congestion and low travel speeds during peak hours in the rapidly developing Valley and Mountain areas, and also in the Victor Valley area of the Desert.



One of the most visible effects of rapid growth has been on the circulation system. The ability to move on streets and highways is projected by regional planning agencies and Caltrans to get substantially worse as more traffic is generated and the ability to finance needed improvements is uncertain. While additional facilities are needed, the majority of funding for roads and highways is now being spent on maintenance. Freeways and highways in the San Bernardino Valley and Victor Valley areas have been identified by various traffic studies as having declining levels of service. Traffic analysis and transportation planning is made especially difficult considering the number of agencies and jurisdictional fragmentation in the County.

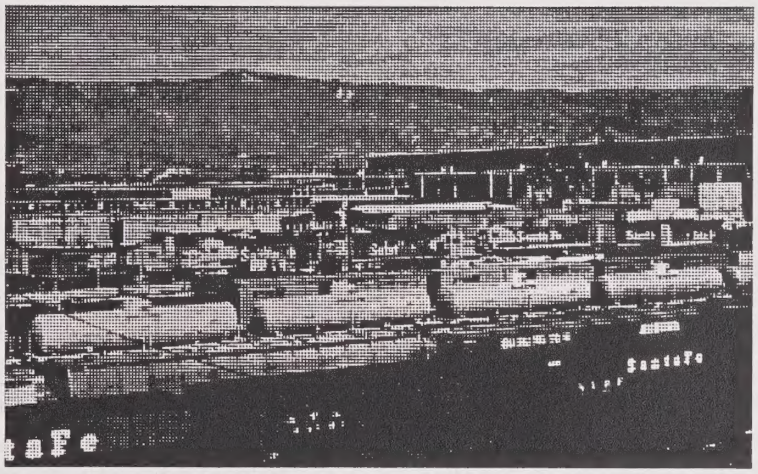
There are approximately 3,620 miles of County maintained roads in County unincorporated areas, of which approximately 2,930 are paved. In addition, there are hundreds of miles of State highways and freeways. While building or widening of roads continues, other methods of addressing circulation problems can involve: job/housing balance strategies, increased use of public transit, ridesharing and carpooling, improved traffic management, restricting curb cuts on major highways, and acquiring adequate access and right-of-way dedications through the subdivision and project approval process utilizing the predesignation of future corridors on the General Plan Circulation Maps.

Within the County's Valley area, transportation is based largely on the automobile. A significant proportion of residents commute daily into Los Angeles and Orange Counties by automobile; SCAG forecasts substantial increases in home-to-work trips from San Bernardino County to Los Angeles and Orange Counties from 1984 to 2010. Except for ride-sharing and bus services, there are presently no viable transportation alternatives. Similarly, residents of both Orange and Los Angeles Counties frequently travel to the Valley for recreational events, leisure activities, or to use Ontario Airport. The widespread dependence on the automobile contributes to congestion and air pollution and, in times of energy shortages, could seriously restrict mobility.

Consequently, it is important that design and construction of roadways in the numerous Valley cities and unincorporated communities are linked to form a coordinated and integrated Valleywide transportation system. This is particularly critical in avoiding circumstances where some roadways are congested and others are underused. It is also critical to maintain close ties with local streets, State highways and freeways to avoid premature decisions on land use commitments. Although public transit is now available in most areas of the Valley, continued analysis of routes and schedules is essential to achieve maximum efficiency and utilization from the large capital investment.

The County's Mountain region is served by a limited number of roads which climb steeply and curve sharply over a difficult landscape. Engineering and construction of new roads or improvements of existing roads can be very costly and time consuming. In several Mountain communities, the existing roadways are already severely overcrowded and deteriorated by local and tourist traffic. In many cases, populated areas are served by local roads without all-weather surfacing which may impair emergency vehicle access or escape routes during emergencies. Severe winter conditions can damage and slow traffic on State and County-maintained road systems. Because of the increased number and intensity of recreational, residential and commercial development planned for the Mountains, existing roadways will be even more severely burdened in the future. Furthermore, the steep terrain and physical environment of the Mountains make it difficult or impractical to build new roads or widen existing roads.

Unlike urban areas where roads crisscross the land, the majority of the County's Desert region, because of its vast size and scattered pattern of ownership and development, has a limited number of access roads. Because of this limited access (no legal right-of-way), many Desert landowners cannot reach their property without trespassing. The problem of approved access has plagued the Desert region for some time. But, by carefully selecting the location of new roads and maintaining a narrow definition of approved access, the County can protect areas of unique scenic, wildlife and vegetative habitats as well as deter



Trains at the Southern Pacific computerized rail yard; Colton

premature subdivision of land which could require costly County services. The quality of public and private roads found in the desert varies immensely. Surfaces range from asphalt and concrete to gravel and dirt. As a consequence, the standards for new roads added to the County system must be high in order to assure that maintenance is low. Here, as in other regions, transportation improvements must be planned and phased with development and land use plans.

The basic function of the routes on the Transportation/Circulation maps is to indicate major transportation corridors, both existing and proposed, as they relate to each other and to planned land use districts and health and safety features. They also serve as a guide to offers of dedication and improvements to rights-of-way, either in advance of need or as development occurs. Rail facilities, and passenger stations (Amtrak), airports, bus terminals, and Park-and-Ride facilities are also delineated.

In addition to the extensive network of highways, the County is also served by air, rail, and bus transportation. Ontario International Airport, in the County's West Valley, is one of the fastest growing airports in the U.S. It provides relief for other Los Angeles area airports from some of the overall demand. The San Bernardino County Airports Department operates seven airports throughout the County (Chino, Barstow, Apple Valley, Twentynine Palms, Needles, Baker and Trona). There are also numerous other airports in the County which are operated by cities, the Department of Defense (military airports), and privately owned and operated facilities. The Transportation/ Circulation maps indicate public use airports.

The County has an extensive rail network, which is operated entirely by the private sector. Three major transcontinental rail companies provide freight service (Santa Fe, Union Pacific, and Southern Pacific). The rail yards in Colton and Barstow rank among the most advanced in the nation. Limited passenger service is provided by Amtrak; however there is no commuter rail service. Amtrak stations are located in San Bernardino, Barstow and Needles with two eastbound and two westbound trains daily, i.e. the Southwest Chief and the Desert Wind which provide transcontinental service between Los Angeles and the East Coast. A new Amtrak station is proposed in Victorville. The feasibility of commuter rail on existing railroad right-of-ways is being studied by SCAG. This transportation mode will become increasingly important in solving Southern California's mobility problems in the future. Rail lines and Amtrak stations are shown on the Transportation/ Circulation maps.

Regional and interstate bus services are provided by Greyhound-Trailways, a private sector company, with terminals in the cities of San Bernardino, Victorville, Barstow, and Needles. Another private bus company, Desert Stage Lines, operates a daily service from a terminal in Twentynine Palms to Palm Springs.

Bicycle transportation is emerging as an increasingly important mode of travel, for both transportation and recreation purposes. At present, there are 70 miles of bikeways in the County. Most of this is accounted for by the 51-mile bikeway along the California Aqueduct from the Los Angeles County line to Lake Silverwood. The development of a County bikeway plan is being actively pursued.

Pedestrian facilities form an integral part of the overall transportation network. Safe pedestrian facilities are needed to minimize the number and severity of traffic accidents involving pedestrians. Pedestrians are slow and fragile as compared to motor vehicles; a collision between a vehicle and a pedestrian almost inevitably results in at least an injury, often a fatality. The pedestrian population includes many persons who are not familiar with traffic laws (one does not need to pass an examination to become a pedestrian), as well as lame, deaf, blind, or wheel-chair restricted persons; they may either take actions likely to result in accidents, or may be unable to avoid them.

Public transit is provided by a number of operators and systems throughout the County At present, there are no bus lanes or busways for bus transit in the County. In the Valley region, Omnitrans is the principal provider of public transportation services and serves thirteen cities and the unincorporated areas of Bloomington, Chino Hills, Mentone, and Yucaipa. Omnitrans provides fixed route bus services, dial-a-ride service (similar to taxi service), and dial-a-lift service with specially equipped vans for the handicapped. The Mountain and Desert regions are served by the following transit systems:

- Adelanto Dial-A-Ride
- Barstow City Dial-A-Ride
- Barstow County Dial-A-Ride
- Big Bear Dial-A-Ride
- Big Bear Elderly and Handicapped Dial-A-Ride
- Crestline/Lake Arrowhead Transit Service
- Desert Area Rapid Transit
- Roadrunner Transit Service
- Needles Elderly and Handicapped Dial-A-Ride
- Victorville Fixed Route
- Victor Valley Elderly and Handicapped Dial-A-Ride

Many truck cargo carriers entering or leaving southern California pass through San Bernardino County. Interstate Highways 10, 15 and 40 all traverse the County. Because of this highway transportation network, the County has become a center for interstate trucking firms. There are currently ten major truck terminals for freight consolidation and transfer located in San Bernardino County. Additionally, there are over 80 contract and independent trucking firms which also handle containers.

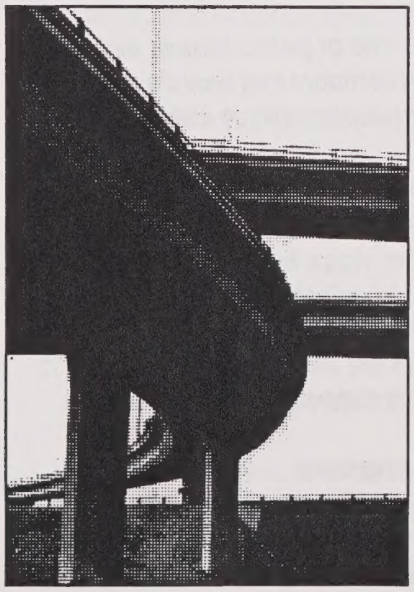
Recently, State Route 71 in the Chino Hills Specific Plan area was designated by the County Board of Supervisors as an official truck route. At present, this is the only highway designated as a truck route in the unincorporated County area.

The Transportation/Circulation maps utilize a computerized mapping system developed by the Land Management Department's Data Systems Section. The hierarchy of roads and highways is shown in tabular form (Policy TC-1) in this section. Road designations on the maps indicate the ultimate planned road facility. A road shown as "existing" will indicate that there is an existing road on the ground, however, the existing road may not necessarily be built to its ultimate width. A road shown as "proposed" will indicate that there is no road on the ground at present. Collector and local streets are not shown on the maps as they are not considered "major thoroughfares" which are required by State law in a General Plan Circulation Element; these lesser roads are indicated on separate maps in the Land Management Department and the Transportation/Flood Control Department, and are not a part of the General Plan.

The circulation maps show seven basic categories of facilities:

- Freeways
- Major Arterial Highways
- Major Divided Highways
- Major Highways
- Secondary Highways
- Controlled/Limited Access Collectors
- State Highways with special standards or conditions which do not fit into previous categories

These are broad classifications reflecting certain functional and technical differences. Freeways are distinct from other highway categories because they are physically separated by bridges and underpasses from other roadways, thereby providing uninterrupted movement. Major and Secondary highways are generally surface streets which intersect, so through-movement is interrupted and traffic must be regulated by signals and signs. Major highways are depicted as Major Arterials, Major Divideds, and standard Majors. Major Arterials will have six moving lanes of traffic; Major Divideds and Majors will typically have four lanes. Secondary highways are also arterial routes, and usually have four lanes of moving traffic. Controlled/Limited Access Collectors vary from standard collectors as parking and access from individual residences are prohibited in order to efficiently accommodate traffic flows approaching the capabilities of a secondary highway. Closely linked to these highway facilities are the various rail, airport, bus, bicycle, pedestrian, and Park-and-Ride facilities.



Junction of the San Bernardino and Devore Freeways; Ontario

The Major Arterial Highway, Major Divided Highway, Major Highway, Secondary Highway, and Controlled/Limited Access Collector designations generally apply only in the Valley and Desert areas of the County; in some cases, these highways are utilized within the Mountain areas of the San Bernardino National Forest, as in the case of State Highway 138. The Mountain Major Highway and Mountain Secondary Highway designations apply only within the National Forest boundaries of the San Bernardino and San Gabriel Mountains. Freeways and State Highways with special standards or conditions can apply anywhere.

Improvement standards for these facilities are set by the County Department of Transportation in unincorporated areas and by each city within its own boundaries. Right-of-way and roadway widths vary from the rest of the County in Mountain areas, and standard urban curb and sidewalk improvements do not apply in rural areas. Hazard areas may also require special standards. Many of the circulation routes on the regional map reflect several decades of planning. Routes may be reclassified, added or deleted as new information arises through the General Plan amendment process.

A well-coordinated regional approach and adequate funding is required for regional agencies to analyze and maintain adequate levels of service correlated with future growth and land use and the implementation of transportation system improvements. Further detailed traffic analysis modeling and coordination with State, regional and local agencies is required in order to identify and prioritize needed improvements. (For further information see the Transportation/Circulation section of the Background Appendix).

Goals

D-14 *A transportation system which moves people and goods safely and efficiently for current and future development needs.*

D-15 *A balance between different types of transportation.*

D-16 *Reduce dependency on the automobile and promote the use of public transit, including rail service, and the development of bicycle and pedestrian corridors that provide alternate transportation routes; increase average ridership when the automobile is utilized.*

D-17 *Provide for the development of regional transportation facilities in coordination with cities, regional, State and Federal agencies. This may include the development of fees, assessments, or alternative funding measures.*

D-18 *Provide for and maintain a system of public general aviation airports.*

D-19 *Ensure the provision of adequate transportation facilities to support planned land uses.*

D-20 *Plan and develop the transportation system in an orderly sequence.*

D-21 *Design road standards and maintain major thoroughfares to complement the surrounding environment appropriate to each geographic region.*

D-22 *Prepare coordinated financial plans to upgrade the transportation system.*

D-23 *Use transportation rights-of-way for multiple transportation modes including recreation, where feasible; allow abandonment of transportation rights-of-way only when it is clearly demonstrated that it is not feasible to use the land for transportation and recreation needs; preserve rights-of-way for future possible uses in the long term.*

D-24 *Ensure adequate access for emergency evacuation and for emergency vehicles in the event of wildland fires and other natural disasters.*

D-25 *Coordinate the location and scheduling of public transit services and facilities; support the establishment and maintenance of public transit between major air terminals within the region.*

D-26 *Support the development of a State freeway system which meets the needs of the County.*

D-27 *Upgrade nonall-weather County roads to all-weather status where practical and cost-effective.*

D-28 *Ensure appropriate* ***legal and physical access*** *to land prior to approving land divisions or new development.*

D-29 *Strive to achieve level of service C on all highways and intersections.*

D-30 *Support the development of commuter rail services and coordinate with public transportation systems along rail corridors for each community served.*

Policies/Actions

TC-1 Because it is an objective to achieve and maintain level of service C on all highways and intersections, and because level of service is affected by design standards, the County shall:

a. Implement appropriate design standards for all types of highways as shown in Figure II-13.

b. Develop and adopt County "Road Planning and Design Standards" as a design manual which will apply to and regulate all road and drainage improvements to be dedicated to the County.

c. Protect and increase the designed vehicular capacity of all vehicular thoroughfares and highways by implementing the following:

i) Use current and develop new innovative traffic engineering practices to increase roadway capacity and safety such as:

– The use of a raised median on Major Arterial Highways in urban areas.

Figure II-13
Highway Design Standards

HIGHWAY DESIGNATION	NUMBER OF LANES	RIGHT-OF-WAY WIDTH	CURB-TO-CURB SEPARATION
Freeway	Variable (per Caltrans)	Variable (per Caltrans)	Variable (per Caltrans)
Major Arterial Highway	6	120' minimum	104'
Major Divided Highway	4	120'	94'
Major Highway	4	104' minimum	80'
Secondary Highway	4	88'	64'
Controlled/Limited Access Collector	2	66'	44'
Mountain Major Highway	4	80'	64'
Mountain Secondary Highway	2	60'	44'
State Highway (special standards/conditions)	Variable (per Caltrans)	Variable (per Caltrans)	Variable (per Caltrans)
Collector Street	2	66'	44'
Local Street	2	60'	36'
Mountain Collector	2	50'	--
Mountain Local	2	40'	--

Note -
For additional details of the above-listed highways, refer to the San Bernardino County Standards and Specifications Manual.

Collector and Local streets are not shown on the General Plan Transportation/Circulation Maps.

- Limiting access to all categories of Major and Secondary Highways and Controlled/Limitied Access Collectors from intersecting streets; direct access from abutting properties shall be allowed only where no reasonable alternatives exist.
- Obtaining additional right-of-way to accommodate right and left turn lanes at major intersections.
- The development of special urban interchanges utilizing flyovers in areas requiring highflow arterial highways.
- Signal synchronization.
- The establishment of no-parking zones.
- Limiting peak hour turning movements.
- The blocking or dead-ending of existing access roads to main highways.
- The establishment of one way streets.
- Limiting truck traffic on certain roads and at specified hours.

- Requiring all development proposals adjacent to all categories of Major and Secondary Highways and Controlled/Limited Access Collectors to be designed so that direct access from the private property to the roadway will not be needed.
- Controlling lot size frontage to limit access.
- Developing minimum separation distances between access points.
- Restricting access along all roads intersecting Major and Secondary Highways for a distance of 600 feet from the centerline of said Highways to the maximum extent possible.

ii) The spacing of highways in Valley and Desert planning areas shall be limited to:

- 1/2 mile intervals for Major Highways.
- 1/4 mile intervals for Secondary Highways and Controlled/Limited Access Collectors as defined in the "Road Planning and Design Standards" manual referenced in TC-1b, when adopted.

iii) On Controlled/Limited Access Collectors and all categories of Major and Secondary Highways, no direct access shall be permitted from the driveways of individual residences. To ensure this, access rights shall be dedicated to the County as development occurs, through conditions of approval.

d. Provide collector roads and local roads with appropriate design standards from the County Transportation/ Flood Control Department.

e. Assist in the development and implementation of the following for the State highway system:

i) A plan for maximum potential build-out for both conventional highways and future corridors.
ii) A program that protects right-of-way according to the Caltrans Route Concept, especially for future corridors.
iii) A minimum fifteen (15) foot building setback shall be provided beyond the State's right-of-way. A twenty-five (25) foot setback will generally be required.
iv) Prohibit lots within new subdivisions from having direct vehicular access to State highways. On existing parcels, the use of driveways on State right-of-way shall be minimized by limiting the number of driveways, or requiring the sharing of driveways, or requiring corner lots with minimal highway frontage to have access to local roads and not to a State highway.
v) All future development adjacent to a State highway shall provide a left turn lane with appropriate tapers where there is an identified need in the interest of traffic safety.
vi) All 2-lane State highways with average daily traffic (ADT) counts between 1500 and 3000 shall generally have an eight (8) foot shoulder and those with ADT counts over 3000 shall generally have a ten (10) foot shoulder of a design acceptable to Caltrans.

vii) All State routes should have pedestrian crossings at major intersections in accordance with Caltrans standards.
viii) Control access on State highways to achieve a one-half mile interval for connecting cross streets.
ix) Preserve and perpetuate the current drainage patterns as they relate to the State highways.

TC-2 Because a balanced transportation system must be established in order to maximize the efficiency of the highway network and further develop other transportation modes, the County shall:

a. Require safe and efficient pedestrian facilities in residential, commercial, industrial, and institutional developments, including schools, to facilitate access to public and private facilities and to reduce vehicular trips.

b. Require ramps and other design features for the handicapped in new urban areas and, where practical, in existing urban areas, which comply with Federal and State regulations regarding transportation accessibility for the disabled.

c. Develop a County bikeway plan.

d. Provide opportunities for rail and truck loading/unloading and break-bulk facilities through the Official Land Use designations of the General Plan.

e. Prepare a long-range general aviation plan for the County and, in cooperation with the Airport Land Use Commission, develop land use plans for areas surrounding all airports to:

i) Permit development only in accordance with approved airport land use plans.
ii) Review new developments in terms of conflicts between the proposed use and the airport needs.

f. Establish programs and standards that will reduce the use of and dependency upon the automobile, reduce vehicle miles traveled and maximize the use of existing facilities through:

i) Incentive programs for the use of alternative transportation modes, such as County sponsored van pools, and other measures such as flexible working hours and four-day work weeks.
ii) Land use patterns in new development that minimize the number of automobile trips by providing neighborhood shopping facilities, and pedestrian and bicycle paths.
iii) The design and implementation of land uses, development standards, and capital improvement programs which maximize the use of public transit.
iv) Work with regional agencies (SCAG, Caltrans, SANBAG, Commuter Computer) to develop ridesharing programs and public transit.

v) Designate existing Park-and-Ride facilities on the General Plan Circulation Maps; work with Caltrans to identify appropriate future Park-and-Ride facilities and develop a program to acquire and develop sites for such facilities in areas where there is an identified need.

TC-3 Because there must be correlation between land use and the transportation/circulation system pursuant to Government Code Section 65302(b), the County shall:

a. Consider the ability of existing roads to handle projected traffic increases in the review of new development proposals. If level of service C cannot be maintained, require improvements that will work toward achieving and maintaining that standard.

b. Require traffic studies as appropriate for development proposals that will have an impact on traffic circulation.

c. Consider the accessibility requirements of each land use activity when determining its best location.

d. Provide access and make improvements to the circulation system consistent with needs generated by land uses shown on the land use maps and specified by the Improvement Levels (IL) as shown on the Infrastructure Overlay maps.

e. Require all proposed development (including both ministerial and discretionary review applications) to dedicate street rights-of-way and drainage consistant with the General Plan.

TC-4 Because there are diverse geographic areas and communities with widely ranging conditions, the County shall:

a. Adopt and utilize road standards which are appropriate to geographic constraints, and which complement the surrounding environment.

b. Work with technical and professional associations, the cities, and regional agencies to develop road standards which are compatible for City and County areas on a regional basis.

TC-5 Because transportation planning is both local and regional in nature, the County shall:

a. Coordinate financial plans for transportation system improvements with other agencies and jurisdictions in the County.

b. Jointly fund studies and improvements to the transportation system,as appropriate, with developers, cities and other public agencies.

c. Actively work with Caltrans to develop traffic mitigation measures to deal with the impact of new development on State highway facilities (existing or proposed), as

stated in the California Transportation Commission Resolution G-84-5, "Policy Guidelines For Funding Interchanges and Crossings."

d. Apply for grant funding for transportation system improvements as appropriate.

e. Coordinate transportation system improvements with the adopted Capital Improvement Programs of the County and other agencies.

f. Continue to participate in a Council of Governments (SANBAG) which acts as the transportation planning coordinator for all local agencies in San Bernardino County, and regularly attend meetings of SANBAG to discuss planning items of mutual concern.

g. Integrate the transportation plans of SANBAG, which acts as the County Transportation Commission, with the County General Plan through the General Plan amendment/update process.

h. Continue active participation in the regional Council of Governments (SCAG) for the Southern California region.

i. Integrate the transportation plans of SCAG, including the Regional Mobility Plan, with the County General Plan through the General Plan amendment/update process.

j. Identify long-range transportation corridors in conjunction with the plans of regional transportation agencies; develop a program to protect the right-of-way for long range corridors.

TC-6 Because the development approval process is dependent upon a balance between new development, transportation facilities and the timing of needed construction or improvement of transportation facilities, the County shall:

a. Approve development proposals only when they are consistent with the County's objective of maintaining a level of service C on highways and intersections affected by the development.

b. Actively work with local and regional transportation agencies to ensure transportation system improvements in locations where facilities are approaching or have exceeded capacity.

c. Monitor, on a continual basis, and compile annual reports on the capacity and level of service of the County maintained road system.

d. Develop and implement a systematic ongoing Countywide assessment of regional and local transportation facility needs and a traffic analysis system utilizing traffic modeling techniques based on maximum potential build-out, as defined in the General Plan, in conjunction with the County Transportation/Flood Control Department, SANBAG, and the cities within the County.

e. Manage future development so that sufficient levels of service and approved alternative transportation management systems are provided.

f. Coordinate with local and regional transportation agencies and the cities to plan and construct new facilities on the basis of the County's adopted growth forecast.

g. Ensure consistency of transportation facilities with the County's Capital Improvement Program.

TC-7 Because the use of transportation rights-of-way should be maximized, the County shall:

a. Install bicycle lanes and sidewalks on existing and future roadways where appropriate.

b. Work with other transportation agencies to seek alternative uses for rights-of-way when appropriate.

TC-8 Because State law requires the General Plan to address evacuation routes, as they relate to identified fire and geologic hazards, and the objective of ensuring public safety from natural hazards requires the maintenance of accessibility to populated areas during and after natural disasters, the following shall apply:

a. Plan for projected emergency access needs in the annual review and approval of the County's Capital Improvement Program.

b. The following roads and highways are designated potential evacuation routes:

i) In the Valley planning area of the County, the major routes out of the County are Interstates 10, 15, and 215, along with State Highways 30, 31, 60, 66, 71, and numerous major and secondary highways.
ii) For the Mountain planning area, potential major evacuation routes are State Highways 2, 18, 38, 138, 173, and 330, and Mount Baldy Road.
iii) In the Desert planning area, there are Interstates 15 and 40, U.S. 95 and 395, and State Highways 18, 58, 62, 127, 138, 178, and 247.

c. The above listing of potential major evacuation routes is not meant to be a comprehensive evacuation plan. It merely indicates the major highways traversing the County, all of which are potential major evacuation routes should a disaster occur within the County. These routes are found on the circulation maps of the General Plan. In most cases, the San Bernardino County Sheriff's Department is in charge of evacuation procedures. Specific evacuation routes will be designated during an emergency, as and when the need arises, in accordance with the evacuation procedures contained in the County Emergency Management Plan (which is not adopted as part of the General Plan). Earthquakes, major floods, and fires may make certain routes impassable. Detours and rerouting of traffic will be designated by the appropriate agency following procedures set forth in the Emergency Management Plan.

d. In addition to the above potential evacuation routes, Caltrans has identified a number of "Possible Evacuation Routes" in the Valley planning area. These roads have the least number of bridges and may be among the safest roads to travel in the event of a major earthquake:

West Valley Area

- San Bernardino Avenue/4th Street from Vineyard Avenue to Cherry Avenue.
- Valley Boulevard from Cherry Avenue to Mount Vernon Avenue.
- Etiwanda Avenue from San Bernardino Avenue to its northern extremity.
- Sierra Avenue from Foothill Boulevard to Riverside Avenue.
- Slover Avenue from Milliken to Pepper Street.

East Valley Area

- Cajon Boulevard from Devore to Highland Avenue.
- Mount Vernon Avenue from Highland Avenue to La Cadena Drive.
- La Cadena Drive from Mount Vernon Avenue to the Riverside County line.
- Barton Road from La Cadena Drive to Waterman Avenue.
- Waterman Avenue from Barton Road to Mill Street.
- Mill Street from Waterman Avenue to E Street.
- E Street from Mill Street to Kendall Drive.
- Kendall Drive from E Street to Palm Avenue
- Hospitality Lane from Waterman Avenue to Tippecanoe Avenue.
- Coulston Street from Tippecanoe Avenue to Mountain View Avenue.
- Lugonia Avenue from Mountain View Avenue to Orange Street.
- Redlands Boulevard from Waterman Avenue to Orange Street.

e. Public roadways should be developed with a minimum of a 40-foot wide right-of-way in the Mountains and a 50-foot wide right-of-way in the Valley and Desert, both with a minimum 26-foot wide paved way of travel. For privately maintained roads, the minimum should generally be no less than a 24-foot wide paving with no parking allowed, 30-foot wide paving with parking allowed on one side, or a 36-foot wide paving with parking allowed on both sides.

f. Ensure that development has adequate access for emergency evacuation and for emergency vehicles, in the event of wildland fires and other natural disasters, by applying the following:

   i) Require compliance with the provisions of the access standards of the Fire Hazard Overlay District, the Subdivision Design and Improvement Standards of the County Development Code, and, where applicable, Planned Unit and Planned Residential Development standards.

ii) Access for development projects shall be considered in conjunction with the location of active faults through the development review process. Access across faults shall be discouraged where point(s) of access can feasibly be located outside of fault areas.

iii) Through the provisions of the Fire Hazard Overlay District and the development review process, require projects to provide immediate vehicular access to the perimeter of structural development within projects adjacent and exposed to wildlands.

g. In areas with predominant natural slopes greater than thirty percent (30%), and in canyon mouths and ridge saddles:

i) Access roads shall be the shortest length feasible.

ii) Grading for roads shall be the minimum necessary to provide adequate access.

iii) The applicable decision makers shall consider, in the review of proposed General Plan amendments or the development of specific plans, accessibility to the site(s) including the quality of existing or proposed roads which will provide access.

TC-9 Because public transit is a vital element in meeting transportation demands in urban areas, the County shall:

a. Assist **Omnitrans** and other transit agencies in coordinating the location and scheduling of public transit services and facilities.

b. Work with the cities, Omnitrans, and other transit agencies to integrate local transit service routes and schedules into a linked, Valley-wide system throughout the Valley area.

c. Urge the timely extension of public transit between residential areas and industrial/urban employment centers.

d. Support the establishment of transportation services and public transit between Ontario Airport, Orange County Airport, and Los Angeles International Airport.

TC-10 Because new development generates traffic which impacts the County's road system and causes costly improvements to be required, the County shall develop and adopt Local Area Transportation Facilities Plans, as appropriate, with transportation fee programs to provide a financing mechanism for facilities necessary to mitigate the impacts of new development.

TC-11 Because land use and transportation planning decisions are made based on the Circulation Element and Maps, it is essential to maintain this Element in an up-to-date form. To achieve this, the County Land Management Department and Transportation/Flood Control Department shall coordinate to maintain the Circulation Element text, policies and maps. Other responsibilities shall include:

a. Coordination with the County's cities, Caltrans, SCAG, and SANBAG on transportation/ circulation issues.

b. Monitoring the cities' General Plan Circulation Elements for amendments, as the city areas are shown on the County circulation maps in recognition of the regional nature of transportation and circulation, and amending the County Transportation/Circulation maps to reflect current city designations.

c. Monitoring the regional plans of Caltrans, SCAG, and SANBAG to insure that the General Plan is consistent with those plans.

TC-12 Because basic minimum standards and requirements for roads and access improvements have been developed and applied to all new development, these are hereby incorporated into the General Plan as follows:

a. Where a parcel of land is being divided through a minor subdivision procedure and a dedicated road or street right-of-way, railroad right-of-way, or flood control right-of-way bisects the property, the lots shall be designed, wherever possible, to be on only one side of the right-of-way.

b. Public road access is a requirement for all newly created lots. If that is not physically feasible, private road access may be granted only if circumstances warrant. Private road access requires a minimum 20 foot recorded easement for single lots (one house), 30 foot for multiple uses.

c. Cul-de-sacs shall not exceed six hundred (600) feet in length, except as provided below, and shall terminate with a turn-around as specified in adopted County Road Standards. Longer cul-de-sacs may be approved if it can be found that the cul-de-sac will not be injurious to the public health, safety and welfare.

d. Road grades shall not exceed twelve percent (12%) unless it can be demonstrated that the objectives of the General Plan and the "Road Planning and Design Standards" design manual can be met.

e. The subdivision, and each phase thereof, shall have two (2) points of vehicular ingress and egress from existing and surrounding streets, one of which may be emergency only. Where it can be shown that this requirement is a physical impossibility or a cul-de-sac is proposed, this requirement may be waived. Additional restrictions may apply in fire hazard areas.

f. The following shall apply regarding conformance with the General Plan:

i) If the General Plan designates a general location of a proposed highway and any portion thereof may be wholly or partially within any proposed subdivision or may be affected by a proposed subdivision, prior to the approval of the proposed subdivision, a specific alignment plan shall be prepared and adopted. Each such roadway shall conform in width and alignment with that shown or indicated on the General Plan or Specific Plan or any standards

adopted pursuant thereto. As a condition of approval of said subdivision, the subdivider shall be required to make dedications and construct such reasonable improvements as required by the specific alignment plan. Such requirements may be waived upon recommendation of the County Transportation/Flood Control Department, if the proposed highway is located upon a section line or its precise alignment can be otherwise determined.

ii) The circulation design of all subdivisions shall be compatible and coordinate with the General Plan and the existing street and land use pattern in the surrounding area.

g. The following shall apply regarding access requirements:

i) Lots created by a subdivision of land shall abut upon a recorded dedicated public right-of-way, of a width as established by the County General Plan Circulation Element, County Master Plan of Highways or County Highway Right-of-Way road system by an approved access which connects a lot or lots to a maintained public street or state highway.

ii) The requirements for approved access to subdivisions having lot sizes of forty (40) gross acres or more may be waived when all of the following findings are made:

- The applicant is or will be subject to severe hardship unless the waiver is approved.
- There is an existing traveled roadway which has been in existence for at least five (5) years which roadway is at least twenty (20) feet in width at all points.
- The roadway has capability for normal passenger car use to each lot in the subdivision.

iii) Private road easements may be approved for access to each lot if it is determined that public street access cannot be provided due to certain title limitations or topographical conditions.

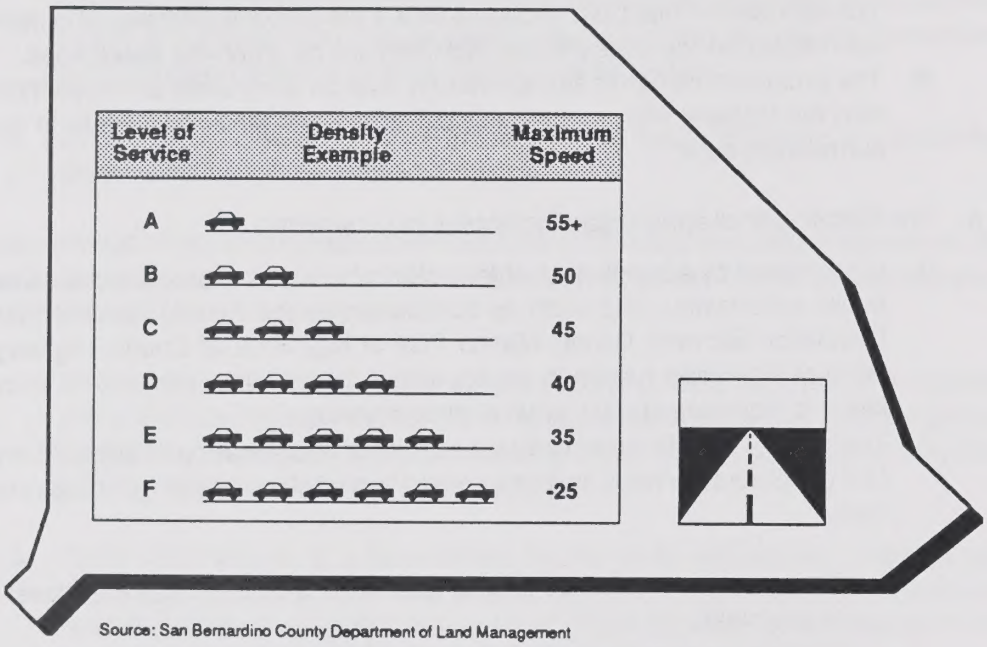
iv) Existing traveled roads, for which a Court has determined that an implied dedicated right by users exists for public use, shall be recognized as legal access to each lot of the subdivision.

h. Regarding dedications, the subdivider may be required to dedicate land within the subdivision that is needed for:

i) Streets
ii) Access rights
iii) Alleys
iv) Drainage easements or Right-of-Way
v) Flood control
vi) Parks
vii) Bike Paths
viii) Public utility easements
ix) Public access to recreational resources such as lakes, rivers, streams, etc.
x) Other necessary public easements or dedications of land

Such dedication may also be required off-site if deemed necessary to support the sound development of the subdivision.

Level of Service examples for automobile traffic



Source: San Bernardino County Department of Land Management

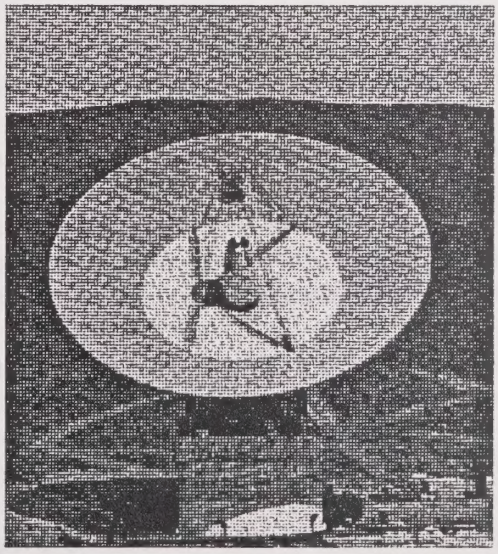
4. Energy/Telecommunications

Southern California's rapid rate of growth has been accompanied by a tremendous increase in the demand for energy and **telecommunications**. This increased demand has resulted in a proliferation of centralized facilities and the various means of distribution, pipelines and facilities. Concurrent with the rise in demand for more energy and telecommunications has been the demand for more efficient production, distribution, and use. In addition, new methods have led to analysis of land development practices and land use patterns.

San Bernardino County has become a major corridor for transmission lines and pipelines as well as the home for new power generation plants. Because energy and telecommunication facilities can have significant environmental impacts, the County must carefully weigh all costs against all benefits; because costs and benefits are measured in different terms and different value systems, this measurement of costs versus benefits will remain difficult and controversial.

Telecommunication facilities utilizing line-of-sight terminals and relay stations require prominent elevated sites, often atop scenic ridges or mountains. Major centralized energy generation plants currently consume vast quantities of land to distribute this energy over the large areas served. Transmission lines and pipeline corridors require an extensive commitment of ribbons of land. Because land and scenic views are a precious resource, decentralization of smaller energy generation plants and the multiple use of corridors and prominent sites should be encouraged.

The increasing cost of energy has stimulated technological research and development of alternative energy sources and efficient telecommunications systems. Use of **solar energy** for water and space heating is commercially feasible, and its use for power generation is now a reality in several large projects in the Desert area of the County. Recent developments in the telecommunications industry have resulted in an increase in the number of companies and transmission facilities. Many companies are utilizing new, more efficient technology such as **fiber optics** in telecommunications.



The 210 foot diameter dish at Goldstone Deep Space Communications Complex receives radio signals from spacecraft; Fort Irwin

The reduced use of energy and the increased use of telecommunications facilities can help to achieve a desirable situation in terms of land use planning. Conservation and reduction of peak load electrical requirements are also means for reducing the demand for more facilities. A higher level of telecommunications use can reduce vehicle trips, transportation demands, and office space requirements. No one governmental or private agency has total responsibility over energy and telecom-

munication development and use, but the actions of any one agency could have important consequences for San Bernardino County. The County has no regulatory control over energy facility siting for projects of 50 megawatts or greater. The California Energy Commission has the responsibility for siting power plants and certain energy transmission lines. The Public Utilities Commission has the responsibility for other energy transmission lines, and plays a role in telecommunications regulation. Telecommunications are also regulated by the Federal Communications Commission. Participation and coordination is essential if the County is to have a voice in decisions which significantly affect land use. By combining its ability to influence energy and telecommunications facility siting with its direct regulatory powers, the County can be assured of adequate facilities and minimal adverse environmental impacts.

The energy resources available to accomplish useful work are conservation, solar, **geothermal**, wind, **hydropower**, oil, gas, and uranium. Conservation is a special energy resource because it is the prudent use of all natural and man-made resources. Conservation is considered all of the following:

- Reduced demand from lifestyle and technological changes
- Waste-to-energy conversion
- Recycling
- **Cogeneration**
- Waste reduction from efficient building and equipment design standards, transportation habits, and land use designs

The availability of each of these sources is dependent upon a variety of constraints. The most limiting factors are the physical potential energy contained within the resource and the cost to safely obtain the energy in usable forms. The knowledge of how these resources could be utilized for the best quality of life and minimal environmental effects is imperative. The sources and utilization locations will contribute to determination of the appropriate technological diversification necessary for wise, long-term land use planning.

Goals

D-30 *Maximize the beneficial effects and minimize the adverse effects associated with the siting of major energy and telecommunications facilities.*

D-31 *Site energy facilities equitably within Southern California in order to minimize net energy use and consumption of natural resources.*

D-32 *Conserve energy and minimize peak load demands through the efficient production, distribution, and use of energy.*

D-33 *Assist in efforts to develop alternative energy technologies which have minimum adverse effect on the environment.*

D-34 *Minimize energy consumption attributable to transportation within the County.*

D-35 *Maximize the use of telecommunications to reduce transportation and land use demands.*

D-36 *Promote safe energy extraction, uses and systems to benefit local, regional, and global environmental goals.*

D-37 *Determine and implement long-term conservation management policies and standards which provide for protection of, access to, and prudent development and utilization of energy resources.*

D-38 *Establish communications networks to obtain resource data for decision makers, planning professionals, the general public, and public interest groups.*

Policies/Actions

ET-1 Because energy facilities should be sited in locations that minimize energy use and the consumption of natural resources, the County shall:

a. Adopt by this reference, as part of the General Plan, the following portions of the **Joint Utilities Management Plan (JUMP)**:

   i) Siting criteria checklist
   ii) Siting analysis maps

b. Utilize comparative analysis of net energy use with its impact as shown on the above-referenced JUMP siting analysis maps and the incremental use of natural resources (including air quality and water supply) when evaluating alternative sites for energy facilities.

ET-2 Because the influx of applications for microwave towers crossing various jurisdictions in the Desert area has necessitated the cooperation of federal, state, and local land management agencies in establishing permitting procedures for line-of-sight communications systems, the County shall:

a. Implement the Memorandum of Understanding between the California District of the Bureau of Land Management and the County of San Bernardino, approved by the Board of Supervisors on April 6, 1987, regarding evaluation of the siting of communication facilities.

b. Utilize the above referenced Memorandum of Understanding to:

   i) Confirm the current working relationship between the Bureau of Land Management and the County of San Bernardino, and establish mutually acceptable and equitable procedures for processing communication site applications.
   ii) Review and evaluate proposed communication systems as a whole, rather than on a site-by-site basis, based on the proposed use of public or private lands, and coordinate the review process between the affected land management agencies.

ET-3 Because the efficient production, distribution, and routing of energy and telecommunications will maximize resources, the County shall:

a. Actively participate in the formation of regional siting plans and policies such as:

   i) Memorandums of Understanding with other affected agencies
   ii) The Joint Utilities Management Program

b. Consolidate pipeline and transmission line corridors by requiring proposed new facilities to locate in existing corridors to the maximum extent feasible. When new transmission facilities cannot be located within existing corridors, assist in investigating the feasibility of establishing corridors parallel to interstate freeways.

c. Assist in the development of limited-life commercial feasibility demonstration projects, such as the "Solar One" project in Daggett, that test new energy resources or technologies.

d. Assist in developing high efficiency power generation modes and transmission systems.

ET-4 Because information on energy resources locations, potential energy content, and cost-benefit analyses is limited, research studies shall be completed for the Valley, Mountains, and Desert areas. These studies shall be funded by grants from the California Energy Commission or other sources and shall be conducted by planning staff, private consultants, or a county energy research, planning, and development team. Valuable resource locations which contain fossil fuels, hydropower, geothermal, wind, or high solar **insolation** values shall be mapped and protected from incompatible land uses.

ET-5 Because it is beneficial to actively participate in all related matters that could influence the siting of energy and telecommunications facilities, the County shall:

a. Designate a staff member to coordinate and expedite all County reviews of proposed energy facilities, carry out all energy/telecommunications programs referenced in the General Plan, and coordinate with the Utilities Coordinator in the Transportation/ Flood Control Department of San Bernardino County.

b. Formally intervene in the siting procedures of the California Energy Commission, Public Utilities Commission, and Federal Communications Commission, when authorized by the Board of Supervisors.

c. Monitor Federal and State activity, including their review of proposed facilities, new legislation, new funding sources and technological advances in the energy and telecommunications fields.

d. Develop a system to provide affected communities with detailed information of proposed facilities as early as possible.

ET-6 Because the use of new and innovative resources, technologies, and design features in energy and telecommunications facilities can assist in maximizing resources and minimizing impacts, the County shall:

a. Assist in analysis of feasibility and benefit of using new technologies during the siting procedure for proposed energy facilities.

b. Require undergrounding of new and existing transmission lines when feasible.

c. Assist in the development and use of new designs for major transmission line towers that are aesthetically compatible with the urban environment from a close viewing distance.

d. Encourage the use of cogeneration energy techniques and facilities as well as all present or future energy efficient technologies.

e. Resist any proposed powerline routes for major steel tower electrical transmission lines along existing wooden pole lines.

ET-7 Because land uses adjacent to utility corridors must be compatible, the County shall approve only those secondary uses within corridors that are compatible with adjacent land uses.

ET-8 Because pumping water requires energy, water conservation devices such as low-flow faucets, showers, and toilets shall be required to reduce demand.

ET-9 Because there are unique climatic and geographic opportunities for energy conservation and small scale alternative energy systems within each of the County's three geographic regions, the County shall:

a. Implement land use and building controls and incentives to ensure energy-efficient standards in new developments in the Valley, Mountain, and Desert areas that comply with the California State Energy Regulations as minimum requirements.

b. Prepare and use the Master Environmental Assessment for energy mitigation measures for the Valley, Mountain, and Desert areas; develop appropriate and economically feasible energy conservation measures to mitigate impacts caused by development.

c. Coordinate energy-related educational media programs.

d. Quantify local climate variations and in each climatic region require energy conservation systems in new construction.

e. Fully enforce all current residential and commercial California Energy Commission energy conservation standards.

ET-10 Because energy conservation and the use of alternative energy resources are desirable to reduce dependence on imported energy, the County shall:

a. Work with other governmental agencies, utility companies and the private sector to achieve energy conservation and the use of alternative energy resources and technologies.

b. Develop and adopt joint City-County energy efficient development standards.

c. Initiate energy legislation as necessitated by changing conditions.

d. Actively participate and represent the County in the development and implementation of standards and regulations under the jurisdiction of the State and Federal governments.

e. As consistent with Air Quality Standards, meet part of the energy need of Mountain area residents and visitors through local timber production. Encourage the National Forest Service to sell "weed" trees as fuel to residents of the region.

ET-11 Because a reduction of energy consumption attributable to transportation within the County would help to conserve energy resources and reduce air pollution, the County shall:

a. Minimize the need to use the automobile and limit distance traveled by establishing mixed land uses and clustering development in nodes.

b. Through the Official Land Use Districts, encourage residences to be located near neighborhood commercial centers in new developments to encourage walking to nearby shops.

c. Encourage the development of recreational facilities within neighborhoods in new developments.

d. Work with and adopt the policies and standards of SCAG and SANBAG in their regional transportation planning efforts, as required by the appropriate State laws and regulations.

e. Recognize and promote the increased use of telecommunications facilities which can reduce the demand for transportation and vehicle trips.

f. Investigate telecommuting for County employees which would allow certain work to be done at home on a personal computer linked to their workplace computers.

g. Amend the County Development Code to require new subdivisions of 200 parcels or more to dedicate bicycle paths. Bikeways and walkways shall be designed consistent with the County bikeway master plan to be safely separated from the hazards of roads and railways by landscaping or appropriate barriers.

h. Amend the Parking Regulations of the San Bernardino County Development Code to include requirements for bicycle and motorcycle parking sites dependent upon development type and location. Details of when, where, how many, and what design the parking sites shall be, must be developed to promote alternative transportation modes consistent with the SCAG Regional Mobility Plan and the County Bikeway Master Plan. Developments with high potential bicycle traffic such as apartments, condominiums, recreational facilities, shopping centers, offices, and industrial complexes shall be required to designate parking sites or racks for motorcycles and bicycles where they can be protected from theft and accidents.

i. All new large scale housing projects (20 or more units) shall be required to provide designated motorcycle parking.

ET-12 Because agencies owning underground facilities are required by State law to become members of a regional notification center, any person or agency planning to conduct any excavations in an area known to contain subsurface installations shall, in accordance with AB 3020, call the Underground Service Alert of Southern California, for any excavation, at least 2 (two) working days prior to commencing the excavations so that underground facilities in the vicinity can be located and field marked by the appropriate agency. The telephone number of the Underground Service Authority of Southern California is 1-800-422-4133.

ET-13 Because fossil fuel combustion contributes to poor air quality, alternative energy production and conservation shall be required as follows:

a. New developments will be encouraged to incorporate the most energy efficient technologies which reduce energy waste by weatherization, insulation, efficient appliances, solar energy systems, reduced energy demand, efficient space cooling and heating, water heating, and electricity generation.

b. All new subdivisions for which a tentative map is required shall provide, to the extent feasible, for future natural heating or cooling opportunities in the subdivision. This can be accomplished by design of lot size and configuration for heating or cooling from solar exposure or shade and breezes respectively.

c. For all new divisions of land for which a tentative map is required, a condition of approval shall be the dedication of easements, for the purpose of assuring solar access, across adjacent parcels or units.

d. Encourage methanol production, from **biomass**, wastes, natural gas or coal, to provide a cleaner substitute liquid fuel for automobiles, trucks, and electric generators.

e. All Environmental Impact Reports and initial studies shall include analysis and mitigation of energy production, consumption, and technological systems.

f. All County facilities, actions, and policies shall provide good examples of the best available technologies and methods for minimizing energy consumption and waste.

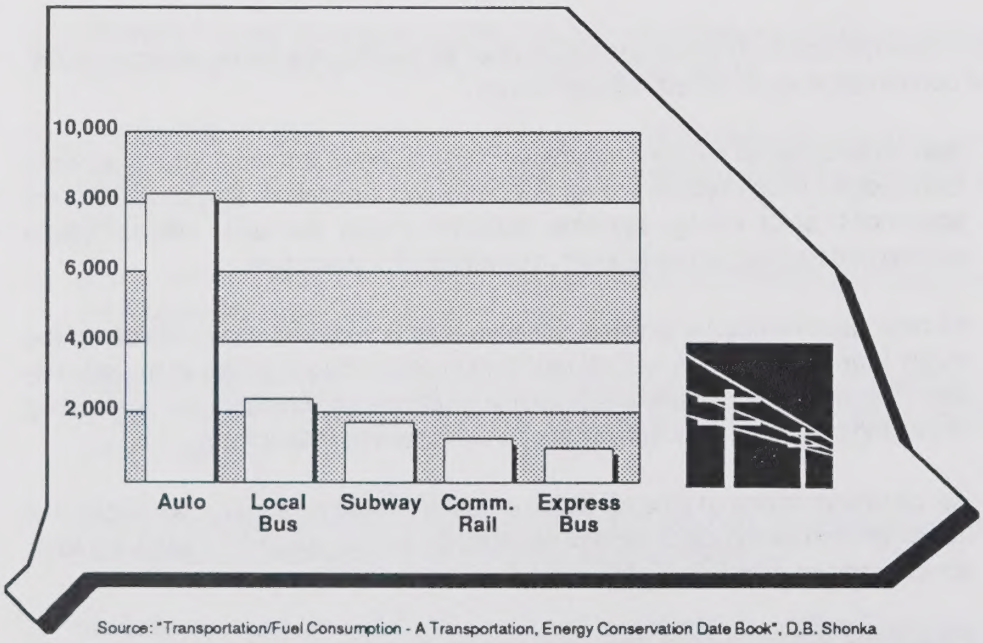
ET-14 Because there is a vast network of underground pipelines carrying crude oil and other fuel-type products within San Bernardino County, the County shall:

a. Include the location of underground pipelines and the type of fuel being carried in the pipelines on the Infrastructure Maps.

b. Direct staff to prepare a plan for Development Code implementation for improvedsafety in areas impacted by pipelines.

c. Designate a staff member to coordimate with the County Department of Transportation Utilities Coordinator, the various pipeline companies, and with the cities having pipelines in there jurisdiction in order to keep accurate, up-to-date records of pipelines activity within the County.

Energy demands of common passenger transportation modes



Source: "Transportation/Fuel Consumption - A Transportation, Energy Conservation Date Book", D.B. Shonka

5. Housing/Demographics

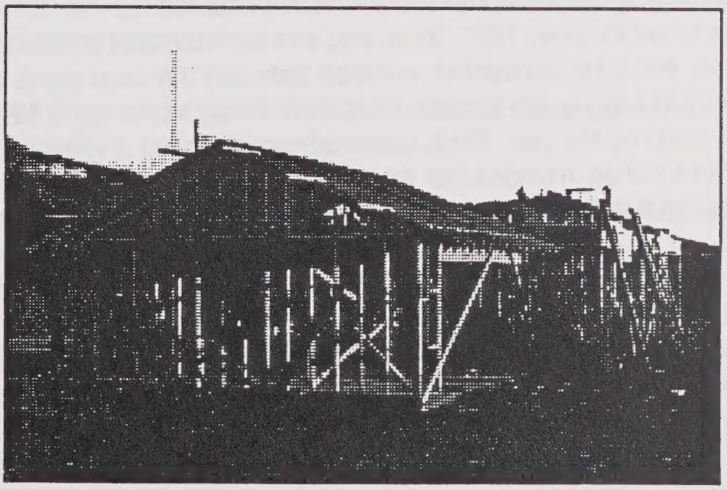
The following provides a general overview of the housing issues facing the County of San Bernardino, including a summary of population and housing characteristics. Section III contains the operating principles, objectives, policies and programs relating to Housing.

Background

Within the County, there are a wide variety of development types and housing needs. In addition to the primarily urbanized areas in the West and East Valleys, there are the resort communities in the Mountains and parts of the Desert, and the retirement communities in Yucaipa, Yucca Valley, Morongo Valley, Joshua Tree, Apple Valley, and Needles. There are areas centered around military installations (Twentynine Palms Marine Corps Base, Fort Irwin National Training Center, Norton and George Air Force Bases), farming communities (primarily located in the Chino Agricultural/Dairy Preserve), and mining communities (Trona and Baker). Environmental constraints and lack of infrastructure render many areas unsuitable or undesirable for development, at least for the short-term.

As of April 29, 1992, the California State Department of Finance (DOF) **estimated** that the population of the unincorporated portion of the County of San Bernardino was 321,346, which included the population of the cities of Chino Hills (42,000) and Yucca Valley (25,292). The total County population was estimated by DOF to be 1,418,380. The 1990 census data indicated that approximately one third (32%) of the County's population were the age of 18 or under. **Southern California Association of Governments** (SCAG) projects that over 2.2 million people will reside in the County by the year 2010 if current trends continue. This growth will account for over one sixth of the anticipated southern California regional population growth. Within the SCAG region, the natural increase is projected to account for over 63% of the population growth during this time frame. However, a much larger share of the growth in the County is due to in-migration.

Construction of new houses continues as the population in the County increases; Yucaipa



The State legislature has declared...." a suitable living environment for every California family is a priority of the highest order." The Housing Element attempts to facilitate this policy. DOF estimates that there are approximately 149,454 dwelling units in the unincorporated portion of San Bernardino County as of April 1992. SCAG projects that the County's housing stock in the unincorporated areas will continue to increase if current population trends continue. The housing supply must be affordable,

varied and conveniently located throughout the County, in order to meet the needs of all segments of the population. Some economic groups cannot afford to enter the housing market and purchase a conventional home. A small segment of the population can not afford rental units. This has created greater demand for housing alternatives. Decreasing family size and changing lifestyles also contribute to the need for a variety of housing types and sizes.

The current and projected population of the entire County, as mentioned above, is much less than the potential buildout estimates of the Official Land Use Districts. However, urban development in some areas of the County may be constrained by limited potable water supply, inadequate infrastructure and public facilities, and environmental constraints. Even with these constraints, there is sufficient land to accommodate the projected growth.

Homelessness is not just a national issue but a state, a regional, and a local issue as well. Within the local context, it is estimated that 3,000 individuals are homeless on any given day. Two 1992 countywide surveys determined that the extent of the problems and the population characteristics vary among the regions. This survey also determined that over 70% of the homeless are located in the urban areas. There are as many as 120 organizations countywide providing various services, including emergency shelters, to the homeless. For the most part, these are located in the urban areas. A discussion of the local homeless issue is contained in the Countywide Needs Assessment segment. A listing of the organization and services provided, current as of July 1992, is contained in the Appendix.

The unique characteristics of the regions and the individual communities within the County must be considered when providing for affordable, varied housing. The age, condition, price range and type of existing housing is different within each community, as are the constraints and opportunities for new housing. Using land use plans, regulations, standards, incentives and housing programs, the County can encourage the preservation of existing housing and the production of new housing in appropriate locations.

In 1989, San Bernardino County had roughly 399,000 jobs which represented 5% of the regional employment base. From data published by the Employment Development Department in June, 1991, trade and service industries predominate the local economy overall, but a fair amount of variation between the local areas was evident. Based on SCAG projections, it is expected that there will be a creation of 30,362 jobs annually within the County by the year 2010. Given current trends, it is reasonable to expect that these new jobs will be in fields other than manufacturing. San Bernardino County is anticipated to provide 8.8% of the regional employment (789,400 jobs) in 2010.

The 1980 Census data indicated that over 67% of the County's labor force, at that time, worked within the County, and 22% worked in other Counties. It is likely that these percentages have changed a great deal since the 1980 census given the in migration of residents who work in Orange and Los Angeles Counties over the last decade. In addition, SCAG estimates that by the year 2010 there will be an increase of 146% and 272% of daily work commutes originating in San Bernardino County into Los Angeles and Orange Counties respectively.

As is obvious, there is currently an imbalance between the location of jobs and housing opportunities in the region that will continue into the future. Reducing the need for long commutes, by achieving some balance between the employment base and housing supply, can be an effective tool. The County, in concert with existing market forces, is attracting more business to the Inland Empire. This is evident from the industrial/retail construction activity occurring in the West End of the County. There are thousands of acres of commercial and industrial designations specified by the General Plan. Only portions of these designations are currently developed and, as such, there is sufficient land to accommodate the anticipated employment growth.

Findings of Analysis

The following summarizes the information of the Countywide needs assessment and constraints sections of the Housing Element:

1) Population Change:

   San Bernardino County has grown continually since 1970, with an annual growth rate between 5 and 6% during the mid- and late 1980's and into the 1990's. Most of the population increase occurred in areas adjacent to Los Angeles and Orange Counties, or within commuting distance of their employment centers. As is evident from the building activity through the first half of 1992, the North Desert and the West Valley areas are the regions experiencing the most growth.

2) Housing Needs:

   Additional housing is required to accommodate the continuing influx of families as well as to meet the needs of existing residents. Existing residents are considered inadequately housed if they are paying more than they can afford, living in substandard units, or living in overcrowded conditions. Mostof these households are in **lower income** brackets. In addition, it has been determined that certain groups with special needs may require public assistance to secure adequate housing. These groups include:

   a. The increasing number of elderly and disabled households who are not able physically or financially, to maintain their homes.

   b. Immigrants from Central and South America and Asia who may live in overcrowded and occasionally substandard conditions until they develop the social, language and job skills to be assimilated into American culture;

   c. Divorced women with children whose reduced income makes it difficult for them to maintain or even afford their homes;

   d. The junior enlisted military personnel and their families who must find housing near the military base and have a limited income to spend; and

e. **Very low income** households who can afford only a small proportion of the units available in the County.

f. The homeless population who cannot afford housing at all.

3) **Problem Areas:**

Normal operation of the housing market should be expected to produce the amount and type of housing necessary to accommodate growth, at prices affordable to moderate and upper income households. Analysis indicates that in most areas of the County, housing affordable to lower income households is also being produced. The exceptions are the Mountain and West Valley regions. The market is not addressing the needs of very low income households adequately. Therefore, the County's Housing Incentives Program is committed to focusing on the production of low income housing throughout the unincorporated areas.

4) Opportunities and Constraints:

Factors constraining the production of sufficient housing in a range of prices may be generally itemized as follows:

a. The availability and cost of land on which to develop housing;

b. The availability and cost of infrastructure and public services;

c. Environmental constraints (such as steep slopes, flood hazards, earthquakes faults, etc.);

d. The availability and cost of financing;

e. The availability and cost of materials and labor for housing construction;

f. Governmental constraints (such as zoning, permit processing delays, fees and assessments);

g. Improvements required on- and off-site with development;

Many of these factors are interrelated and some are beyond the control of local officials. Because of the complex interrelationships among these factors, it is difficult to predict with true accuracy the timing and cost of future housing development. In general, however, San Bernardino County can sufficiently mitigate development constraints and therefore, has greater opportunities for housing construction than other nearby counties.

While there are factors which constrain the production of housing, there are opportunities to reduce the ancillary long term housing costs (e.g. utility bills). Past amendments to the Uniform Building Code, have resulted in new housing units

being much more energy efficient than older units. In addition to these building standards, conservation measures such as site design, landscaping, structural features, and solar energy systems could further improve energy efficiency.

Summary of Population and Housing Characteristics

Statistical Division

Regional Statistical Areas (RSA)	8
Census Tracts Countywide	174
Census Tracts unincorporated areas(includes split tracts)	93

Countywide Characteristics

	1980-1988 Census	1990Census	Difference	%Change
Population	895,016	1,418,380	523,364	58.5
Housing	366,245	542,332	176,087	48.1
Minority Pop.				
American Indian	10,084	10,018	66	(.7)
Black	47,813	109,162	61,349	128.3
Hispanic*	165,863	378,582	212,719	128.3
Asian	14,929	55,387	40,458	271.0
Age				
Median	28.3	27.8	(.5)	1.8
Under 19	286,711	481,456	194,745	67.9
Over 65	89,056	124,900	35,844	40.2

**Because of census methodology persons of Hispanic origin may be represented in several racial categories.*

Countywide Trends

	1970 Census	1980 Census	1990Census	SCAG(est.)2010
Population	684,072	895,016	1,418,380	2,179,400
Housing	249,333	366,245	542,332	962,579

SCAG Estimated and Projected Population Growth for Entire County by Regions

	1988	2010	Difference	% Change
West Valley	504,700	858,200	353,500	70.0
East Valley	453,100	772,400	319,300	70.4
Mountains	53,500	117,100	63,600	118.8
Desert	228,700	431,700	203,000	88.7
Countywide	1,240,000	2,179,400	939,400	75.7

Population 1990 Census

Total County	1,418,380
Total Unincorporated*	321,346
Growth 1980 - 1990	267,994
Percent Growth 1980 - 1990	65.1

**Includes population of the recently incorporated city of Chino Hills (population 42,000) and the Town of Yucca Valley (population 25,292).*

Household Characteristics (Countywide)*

	1970	1980	1990	DIFFERENCE	1980-1990 %CHANGE
Total Households	212,021	308,171	464,737	156,020	50.6
Handicapped	N/A	31,394	Data not available		
Elderly	N/A	55,300	89,436	34,136	108.7
Large**	48,855	43,678	77,035	33,357	76.4
Overcrowded***	19,316	17,426	47,489	3,811	8.7
Avg Household Size	3.112.823.1(0.23)(8.2)				

** Based on 1970, 1980, and 1990 Federal Census.*

*** 5 or more persons*

****1.01 or more persons per room*

Household Income

(Number of Households in each Income Group 1980 Census*)

	1980(Census)	1988(HCD)	1990(HCD)	1992 (HCD)
Median	$17,463	$30,300	$33,800	$36,000
Very Low	$ 8,732$	15,150	$16,900	$18,000
$50% of Median (72,848 HH)				
Low Income	$13,970	$24,240	$27,040	$28,800
80% of Median (50,265 HH)				
Moderate	$20,956	$36,360	$40,560	$43,200
120% of Median (60,005 HH)				
Upper Income	>$20,956	>$36,360	>$40,560	>$43,200
% of Median (125,218 HH)				

Below Poverty Level (by Federal categories)

(28,482 HH)

*Data from the 1990 Census not available at this time

Housing Characteristics (Countywide)

	1980-1988Census	1990Census	Difference	%Change
Dwelling Units	366,245	542,332	176,087	48.1
Housing Mix				
Single Family	277,505	361,598	84,093	30.3
Multi Family	63,126	133,787	70,661	111.9
Mobilehomes	25,614	42,982	17,368	67.8
# of Units Vacant				
Available	57,493	42,805	(14,688)	(.3)
Seasonal	29,403	3 4,698	5,295	18.0
Housing Condition				
Substandard	9,809	N/A	Data not available	
Need Replacing	1,991	N/A		
Need Repair	7,818	N/A		

(1990 Census Data Includes population of Chino Hills and Yucca Valley)

Dwelling Units Estimate as of January 1, - (Unincorporated Area only)*

1991 Dwelling Units (D.U.)	149,454
Increase in DU's 1980-91	(6,071)
% Increase in DU's 1980-91	(.4)
Average Population per occupied DU	2.2

**Based on State Department of Finance estimates and includes population of two recently incorporated cities (Chino Hills and Yucca Valley).*

Housing Market (Countywide)

	1983**	1988**	1990***	1983-1990 Difference	% Change
Median Housing Cost	74,200	101,270	132,130	57,930	78.1

*** 1985-1990 Housing Element*

****Construction Industry Research Board*

Countywide Homeless Estimates as of April 1987

Homeless	Households	Families	Children	Veterans	Mentally Ill
1,175	459	312	552	3	47

** Includes population of four recently incorporated cities.*

*** 1985-1990 Housing Element*

****California Association of Realtors*

Countywide Homeless Estimate as of November 1992

Two field surveys of the homeless population in San Bernardino County were conducted in 1992 by a group of citizen volunteers working with the San Bernardino County Homeless Coalition. All the data collected is provided in Part IV of this document. The Summary of Findings is as follows:

Homeless persons	Percentage children	Average age	Number/ratio females	Percentage Blacks
3,081	43%	23.3	45%	20%

Goals

D-39 *Develop and maintain structurally sound, sanitary, attractive and affordable housing and living environments for all economic segments of society.*

D-40 *Develop efficient, well-coordinated housing programs relevant to the County, that meet the intent of all applicable State and Federal laws.*

D-41 *Implement strategies aimed at developing a balance between housing and employment opportunities for all residents.*

D-42 *Develop sufficient infrastructure and services to accommodate existing and planned residential development.*

Quantified Objectives

1. The 1988 **Regional Housing Needs Assessment** has identified the following fair share allocations for the unincorporated County area which are being adopted as obtainable objectives within the time frame of this Element:

	Dwelling Units
Projected Housing Needs*	
Very Low Income	5,329
Low Income	8,105
Moderate Income	6,148
Upper Income	11,541
***Projected Total by 1994**	**31,123**

**includes figures for the incorporated Towns of Apple Valley, Yucca Valley and the incorporated cities of Yucaipa and Chino Hills.*

2. One hundred substandard units (60 owner occupied units and 40 rental units) are targeted for rehabilitation assistance annually.

3. Two hundred units occupied by lower income senior citizens and/or handicapped individuals, are targeted for home repair grants annually.

Policies/Actions

HE-1 Because the implementation of streamlining measures regarding governmental review and standards may facilitate the reduction of housing cost, the following action-programs shall be implemented or pursued:

a. Continue integration of environmental review with the functions of the regional planning teams.

b. Develop and utilize a Master Environmental Assessment to facilitate the environmental review of housing projects.

c. Continue to give priority to permit processing for projects utilizing the Housing Incentive Program when requested.

d. Continue to distribute questionnaires regarding the County's application processing procedures to the private sector developers. The results of this survey shall be presented as part of the annual housing report to the Board of Supervisors.

e. Review the Development Code regularly for possible revisions that would assist in creating more affordable housing and to facilitate establishment of independent senior citizen living centers, shared senior housing and group care homes.

HE-2 Because innovative housing design and construction techniques may reduce the cost of housing without sacrificing quality, the following action programs shall be implemented or pursued:

a. Develop standards within planning areas that would allow the creation of parcels with lot sizes less than the existing standards for single family residential uses.

b. Establish design guidelines for subdivisions that have any lots with area less than 7200 square feet which are compatible with, and blend into the natural environment and its resources while minimizing potential adverse environmental impacts.

c. Continue to utilize Planned Development density bonus and density transfer provisions as described in the Development Code to allow creation of lot sizes less than that normally required by residential land use districts.

d. Update the location and design criteria for planned subdivisions.

e. Utilize minimum residential construction standards for conventional and manufactured housing on individual lots and continue to allow for temporary dependent housing.

f. Adopt energy efficient design and siting guidelines that are responsive to local climatic conditions and to revisions in State law.

g. Lobby both the State and Federal governments for programs and funding that recognize the effects of regional climatic conditions on housing units.

h. Continue to designate Planned Development (PD) land use districts where design constraints (such as slope instability or flooding) have been identified. PD classifications will encourage efficient land development by requiring the project to be reviewed by Planning staff through the planned development application process.

i. Establish criteria for housing designs on a regional basis that are compatible with, and blend into, the natural environment while minimizing potential adverse environmental impacts.

j. Adopt an ordinance that would allow second units with conditional use permit on any residential parcel provided that each unit has the minimum required area as specified by the official land use designation and that no more than three homes are placed on a given parcel.

k. Adopt an ordinance that would require new residential units of less than 2000 square feet to provide enclosed storage areas.

l. Adopt an ordinance that establishes a density for the number of bedrooms per acre for the following but not limited to social care/institutional and hotel/motel uses.

m. Adopt an ordinance establishing design and locational standards for new recreational vehicular parks.

n. Allow mobilehome parks in the Single Residential land use district at a density of 7 dwelling units per acre, in the Rural Living land use district at a density of 4 dwelling units per acre, and in the Multiple Residential land use district subject to design guidelines which will ensure compatibility with the natural environmental while minimizing potentially adverse environmental impacts.

HE-3 Because property maintenance is desirable and can be promoted through information, training, and health and safety code enforcement programs, the following action-programs shall be taken:

a. Continue the voluntary occupancy inspection program available to prospective buyers of residential property, and increase public awareness of this program.

b. Utilize Section 17299 of the California Revenue and Taxation Code as a Health and Safety Code enforcement tool for rental units inspected by the Department of Environmental Health Services.

c. Inform all owners of residential units, cited for health and safety violations, of resources available through the County Department of Economic and Community Development for structure rehabilitation.

d. Inspect rental units in conjunction with the Rent Supplement Program. Integrate this service with the Housing Authority to ensure subsidized rentals meet code requirements.

e. Conduct periodic multifamily rental unit inspections to ensure safe and sanitary living conditions.

f. Promote the information services of the Housing Authority and Department of Economic and Community Development - one function of which is to provide outreach, counseling and information on fair housing and landlord-tenant laws and housing assistance programs.

g. Use and update the County Rehabilitation Guide for inspection of existing renter- and owner-occupied dwelling units to allow economical and safe rehabilitation

HE-4 Because the preservation of existing housing stock is important in providing housing opportunities for all **income levels**, housing and community rehabilitation programs shall be established and implemented through the following action programs:

a. Encourage and assist local lending institutions in implementing the Community Reinvestment Act of 1977.

b. Encourage both the federal and state governments to change the necessary laws in order to be able to use funding, for the rehabilitation of rental units, that is presently available only for the rehabilitation of single family, owner-occupied, detached housing.

c. Fund the Repair Program Service Grant to assist both the elderly and the physically disabled in maintenance of their residential units.

d. Include within the annual state of the housing report (see HE-10a), those areas most in need of rehabilitation.

HE-5 Because the housing needs of all economic segments of the population are not currently served by the housing market, the following voluntary incentives, strategies and action-programs shall be implemented to stimulate the construction of units that will fulfill this unmet need:

a. Continue to promote the use of the Housing Incentive Program (HIP). HIP provides a density bonus of up to 25% of the densities shown on the Official Land Use Map for projects in which units are reserved for, and affordable to, low and very low income households (as defined in Government Code Section 65915).

b. Promote the use of the Senior Citizens Affordable Housing Program which provides for density bonuses of up to 100% for qualifying senior citizen projects. These are projects that are sponsored, owned and operated by either a non-profit corporation and/or a governmental entity for which 100% of the units are reserved

for qualifying senior citizen residents as defined in Section 51.2 of the California Civil Code and which meet the locational and design criteria described in the HIP.

c. Explore the feasibility of allowing incentives other than bonus density programs to encourage affordable residential development on infill properties throughout the County.

d. Explore all feasible methods to ensure that HIP-supplied dwelling units are affordable to low and moderate-income households for initial and subsequent sales and unneeded rentals.

e. Implement the Housing Incentive Program to allow bonus densities or other optional incentives to developers who agree to provide at least 33% of th dwelling units in a condominium conversion project to low-and moderate-income families.

f. Implement the Senior Citizens Affordable Housing Program to allow for bonus densities or other optional incentives for senior citizen housing and housing accessible to disabled persons.

g. Implement the Housing Incentive Program such that it would encourage the phasing of affordable housing in large planned unit developments when the General Plan bonus density program has been implemented.

h. Utilize and expand all appropriate Federal and State assisted housing programs and the Housing Element's five-year housing programs and the Housing Assistance Program (HAP).

i. Use local notes and bonds, at an amount to be determined by HAP and County Department of Economic and Community Development, for the construction of new affordable rental units.

j. Continue home purchase assistance to current and prospective homeowners under low interest rate programs, administered by CHFA and FHA according to the Five-Year Housing Plan.

k. Use federal and state funding programs to assist mobile home purchase and rental.

l. Identify and use surplus public land to assist in the provision of housing that is affordable to lower income groups.

m. Provide information and assistance to help relocate displaced individuals, including former residents of units converted from renter to owner occupancy status.

n. Coordinate with Housing Officers of the region's military bases to assist in the provision of sufficient housing in the vicinity of military bases, in order to meet the housing needs of junior-ranking military personnel.

o. Continue to implement housing programs, procedures and documents, including but not limited to:

i) Section 8 programs
ii) Section 202
iii) Section 502
iv) Repair Service Program
v) Rehabilitation Loan Programs
vi) Insulation and Weatherization Program
vii) Public Housing Programs
iii) Fair Housing Education and Counseling Programs
xi) Revenue Bond Financing for New Construction
x) Mobilehome Purchase and Rental Assistance
xi) 213 Review Process
xii) Housing Assistance Plan
xiii) Redevelopment projects

HE-6 Because it is desirable to prevent discrimination in housing, the following action-programs shall be established:

a. Fund fair housing education and counseling programs that promote antidiscrimination laws regarding purchased or rented dwelling units.

b. Give priority to low interest rehabilitation loans for multi-family developments where at least 10% of the units are specifically designed for accessibility by the physically disabled.

HE-7 Because it is necessary for each community within the County to provide a variety of housing opportunities in an affordable price range commensurable with the population and income classification of the County, the following action-programs shall be implemented:

a. Recognize the fair share allocations as targets for the equitable distribution of affordable housing among the cities and counties of southern California.

b. Use the Housing Assistance Plan as a guide to identifying the existing inventory as well as proposed locations for affordable housing.

c. Require that planning area studies recognize and encourage affordable housing units commensurate with identified housing needs.

d. In coordination with the Department of Economic and Community Development, investigate funding opportunities and/or incentives which would provide for the rehabilitation of more units a year than are currently rehabilitated in accordance

with the Housing Assistance Plan (HAP) in order to increase the supply of low-to moderate-income units.

e. Investigate the feasibility of tracking the cost of new homes, utilizing current documents and systems within the Office of Planning, in order to determine if all economic segments' housing needs are being met.

f. Include, within the annual state of housing report, the progress made in the previous year towards rehabilitating substandard units for occupation by low-to moderate-income households, and the progress made in reaching fair share allocation goals.

HE-8 Because the presence (or potential presence) of a homeless population is contrary to the County's and State's goal of a "suitable living environment" for each resident, the following action-programs shall be implemented:

a. Continue to quantify the homeless population within the County. Since this issue is multi-jurisdictional and given the nature of the homeless population, coordination with the cities is necessary in achieving an accurate count.

b. Establish better communication between the County departments that provide services and resources to the homeless to facilitate a coordinated effort in solving this issue.

c. Based on the quantity and distribution of the homeless population, determine the additional need for emergency shelters and transitional housing opportunities.

d. Determine the type of unit(s) and the price range of said units for each region within the County, to facilitate the provision of affordable long term housing opportunities for the very low- and low-income group of the population.

e. Amend the Additional Use section of the Development Code to allow emergency and transitional shelters in any zone with conditional use permit and concurrently develop the appropriate locational and design standards for such uses.

f. Include, within the annual state of housing report, the progress made in the previous year towards addressing the homeless issue within the County.

HE-9 Because of the various lifestyles and population characteristics of the County's residents, a variety and balance of housing types and densities shall be provided, through amendment of the Development Code, to require that all new planning area or specific plan studies provide housing types and densities commensurate with demonstrated lifestyles, projected needs, and population characteristics of the individual planning area.

HE-10 Because it is desirable to monitor the housing programs to ensure coordination between the numerous responsible agencies (County Department of Economic and Community Development, Land Management Department, and Housing Authority), and to track the

success of the various housing programs, the following action-programs shall be implemented:

a. Prepare annual housing status reports on the state of housing in San Bernardino County for review and adoption by the Board of Supervisors on or before the second Monday in June.

b. Annually prepare and file Grantee Performance Reports with the Federal Department of Housing and Urban Development.

c. Investigate and foster appropriate sources of funding for implementation of the Housing Element's actions and programs.

d. Utilize the County's regional information mapping system to develop, collect and maintain Regional Statistical Area or smaller areas, specific data base of housing-related data.

e. Develop a computer program that would enable County's automated data systems to identify and monitor the conversion of second units. This program would be used to study the effects of second-home conversions on public service and infrastructure supply. In particular, the program needs to identify the following:

   i) How the supply of second homes could be released onto the market.
   ii) The effect, on housing costs, of the increased supply.
   iii) The level of impact on infrastructure.
   iv) Alternative strategies to mitigate any adverse impacts of these conversions.
   v) Strategies for implementation of the program.
   vi) Possible sources of funding to mitigate impacts.
   vii) Possible land use regulations to implement that would encourage, control and manage second-home conversions.

HE-11 Because it is desirable to limit adverse impacts on existing infrastructure and promote the maintenance of aging infrastructure, residential development shall be encouraged in areas where the infrastructure is underutilized through the following actions-programs:

a. Identify areas of underutilized and aging infrastructure through the County Geo-based Information Management System (GIMS), and investigate alternative financing mechanisms.

b. Explore the feasibility of determining specific criteria and guidelines for residential development in areas of underutilized and aging infrastructure.

c. Establish an ongoing program which will facilitate local review of the 1990 census data.

d. Identify areas of the County where urban infill is appropriate, and encourage their development through the use of various incentives.

e. Study the infrastructure needs of all the unincorporated areas once the data bases are available.

f. In the unincorporated areas of the County, designate residential land use districts within close proximity (three to five miles) of major transportation corridors. The more intensive residential land uses (RS and RM) shall be designated in urbanized areas, and less intensive residential land uses (RS-1, RI-2.5, etc.) in more rural areas.

g. Promote intensified residential development around transit nodes and along transit corridors throughout the county.

h. Throughout the County, encourage mixed-use development through the Planned Development process which includes dense, multiple family residential development as well as clustered, single family residential development, and other uses which provide convenient shopping and employment opportunities close to major transportation corridors.

HE-12 Because there are existing areas lacking the necessary infrastructure that could be appropriate for residential development, the following action programs shall be pursued:

a. Identify areas of insufficient housing where the General Plan designations are underutilized due to insufficient infrastructure.

b. In suitable areas where development would not conflict with the retention or management of open space lands, (including agriculture, natural areas, and mineral extraction zones) study infrastructure development alternatives that would stimulate residential development.

c. Utilizing the documents generated as part of the General Plan update, provide the various serving entities, as requested, data regarding growth and infrastructure facilities necessary for their capital improvement planning efforts.

HE-13 Because it's desirable to achieve a job-housing balance which will further local and regional goals of improved air quality and traffic mobility, industrial and commercial development shall be targeted for areas of the County that have adequate housing supply, and the following action-programs shall be implemented:

a. Explore the feasibility of expanding the supply of commercially and industrially zoned land adjacent to those areas where there are predominately residential land uses.

b. Provide the County Economic and Community Development Department (ECD) with data in a summarized, easily usable format that identifies areas within the County where housing is most readily available. This data will assist ECD in promoting the economic viability of the County to potential commercial and industrial employers.

c. Maintain liaison with the Department of Economic and Community Development (ECD) to provide ongoing updates of housing availability assessments for use by potential employers.

d. Include within the annual state of the housing report, the progress made in the previous year toward balancing the employment to housing opportunities within the County.

e. Facilitate a job/housing balance with the objective of a ratio of 1.20 jobs to 1 dwelling unit and direct the Land Management Department and the Economic and Community Development Department to develop the necessary implementation strategies and procedures.

Regional Housing Policies

These policies are provided for the purpose of meeting low income housing requirements.

West Valley (RSA 28)

1. The following methods of housing design and development are favored in the West Valley:

   a. Single Family Dwelling Units.

   b. Mobile home parks.

   c. Multiple Family Residential apartment projects.

   d. Large lot and or clustered residential lots adjacent to the Chino Agricultural/Dairy Preserve.

2. Continue to identify by census tracts areas targeted for rehabilitations. These areas may include but are not limited to:

   a. North Chino.

   b. West and South Fontana.

   c. South Montclair.

3. Bonus densities for the following types of housing units are favored through the Housing Incentive Program in the West Valley areas having adequate infrastructure in place, or provided for, to support higher densities:

   a. **Lower**: single family detached, single family attached, modular units, mobile homes, multiple family residential apartments.

b. **Moderate**: single family detached, single family attached, multiple family residential apartments, mobile homes.

c. **Senior and/or disabled housing bonus density**: single family attached and multiple family attached.

4. Within the West Valley areas, the types of development to be favored are: urban infill, single family detached specifically adjacent to the Foothill Freeway corridors, clustered development with single family appearance north of Alta Loma in the West Valley Foothill area, single family detached on large lots north of Etiwanda and West of San Sevaine Creek.

East Valley (RSA 29)

5. The following methods of housing development and design are favored in the East Valley:

   a. Minimum lot sizes of less than 7,200 sq. ft. for single family residential development, wherever applicable within the Planning Areas.

   b. Single family dwelling units.

   c. Mobile home parks.

   d. Temporary dependent housing.

   e. Shared senior housing.

6. Continue to identify by census tract areas targeted for rehabilitation. These areas may include but are not limited to the unincorporated areas of:

   a. Bloomington.

   b. Muscoy.

   c. Grand Terrace.

   d. North Loma Linda.

   e. Mentone.

   f. Rialto.

7. Bonus densities for the following types of housing units are favored through the Housing Incentive Program in the East Valley areas having adequate infrastructure in place, or provided for, to support higher densities.

a. **Lower**: single family detached: single family attached, modular units, mobile homes, multiple family residential apartments.

b. **Moderate**: single family detached, single family attached, multiple family residential apartments, mobile homes.

c. **Senior and/or disabled housing bonus density**: single family attached and apartments are the housing types to be encouraged.

Mountains (RSA 30)

8. The following methods of housing development and design shall be encouraged in the Mountain areas:

   a. Clustered development and attached units.

   b. Planned Development projects.

   c. Shared senior housing and group care homes.

9. Encourage the application of the Housing Incentive Program to cluster development (single and multiple family), in the Mountain areas.

10. In the Mountain areas, the following criteria for multiple family residential units developed under the Housing Incentive Program shall be utilized:

    a. In close proximity to commercial uses.

    b. Adjacent to a Mountain secondary or any roadway of greater width.

    c. Where adequate circulation exists to accommodate the increased traffic as verified by the traffic division.

    d. Located where services (particularly water and sewer) are available or assured as confirmed by the respective purveyor.

    e. Located where average slopes are flat to gently sloping (0-15% slope).

    f. Located where compliance with fire safety standards are met.

11. Study the options of infrastructure development in order to optimize efficient land use and the maintenance of environmental quality to achieve a more logical and efficient use of available resources in the Mountain areas.

Baker (RSA 31)

12. Encourage the application of the Housing Incentive Programs to clustered development (single and multiple family), in the Desert areas having adequate infrastructure in place, or provided for, to support higher densities.

13. Discourage housing in the dry lakes of the Desert.

14. Establish programs to prevent discrimination in housing in the Desert region.

15. Study the options of infrastructure development in order to optimize efficient land use and the maintenance of environmental quality to achieve a more logical and efficient use of available resources in the Desert areas.

16. Explore the feasibility of expanding the supply of commercially and industrially zoned land in the Baker RSA when adequate housing supply exists and is underutilized.

17. The following methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

    a. Single wide mobilehome parks.

    b. Temporary dependent housing.

Barstow (RSA 32a)

18. Encourage the application of the Housing Incentive Program to clustered development (single and multiple family), in the Desert areas having adequate infrastructure in place, or provided for, to support higher densities.

19. Discourage housing in the dry lakes of the Desert.

20. Establish programs to prevent discrimination in housing in the Desert region.

21. Study the options of infrastructure development in order to optimize efficient land use and the maintenance of environmental quality to achieve a more logical and efficient use of available resources in the Desert areas.

22. Explore the feasibility of expanding the supply of commercially and industrially zoned land in the Barstow RSA when adequate housing supply exists and is underutilized.

23. The following methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

a. Single wide mobilehome parks.

b. Temporary dependent housing.

Victorville (RSA 32b)

24. Encourage the application of the Housing Incentive Program to clustered development (single and multiple family), in the Desert areas having adequate infrastructure in place or provided for, to support higher densities.

25. Discourage housing in the dry lakes of the Desert.

26. Establish programs to prevent discrimination in housing in the Desert region.

27. Study the options of infrastructure development in order to optimize efficient land use and the maintenance of environmental quality to achieve a more logical and efficient use of available resources in the Desert areas.

28. Explore the feasibility of expanding the supply of commercially and industrially zoned land in the Victorville RSA when adequate housing supply exists and is underutilized.

29. The following methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

    a. Single wide mobilehome parks.

    b. Temporary dependent housing.

Twentynine Palms (RSA 33)

30. Encourage the application of the Housing Incentive Program to clustered development (single and multiple family), in the Desert areas having adequate infrastructure in place, or provided for, to support higher densities.

31. Discourage housing in the dry lakes of the Desert.

32. Establish programs to prevent discrimination in housing in the Desert region.

33. Study the options of infrastructure development in order to optimize efficient land use and the maintenance of environmental quality to achieve a more logical and efficient use of available resources in the Desert areas.

34. The following methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

a. Single wide mobilehome parks.

b. Temporary dependent housing.

Needles (RSA 34)

35. Encourage the application of the Housing Incentive Progras to clustered development (single and multiple family), in the Desert areas having adequate infrastructure in place, or provided for, to support higher densities.

36. Discourage housing in the dry lakes of the Desert.

37. Establish programs to prevent discrimination in housing in the Desert region.

38. Study the options of infrastructure development in order to optimize efficient land use and the maintenance of environmental quality to achieve a more logical and efficient use of available resources in the Desert areas.

39. The following innovative methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

    a. Single wide mobilehome parks.

    b. Temporary dependent housing.

6. Land Use/Growth Management

Land is a natural resource of limited quantity. Its use affects the public health, safety and welfare. The County of San Bernardino encompasses 20,164 square miles of land area of which approximately sixteen percent (16%) falls under the jurisdictional control of the County Board of Supervisors. Approximately eighty percent (80%) of the County's total land area is in public ownership while the incorporated cities collectively have jurisdictional control over the remaining four percent (4%).

California law requires each county to establish a planning agency to develop and maintain a comprehensive long term general plan. The Government Code mandates a land use element designating the proposed general distribution, general location and extent of the uses of the land for housing, business, industry, and open space, including agriculture, natural resources, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of the lands. In addition, the land use element is required to include standards of population density and building intensity recommended for the territory covered by the plan, and is also required to identify areas subject to flooding.

A mixed-use center near a residential area; Redlands

Scope and Purpose

The State guidelines for the preparation of a general plan recommend that the land use element include:

1. Identification of land use issues.

2. Land use policies and proposals, distinguishing among any short, middle and long term periods of fulfillment.

3. A description of land uses and land use intensities including the relationships of such uses to social, environmental and economic goals and objectives.

4. Standards and criteria for physical development within each use area with consideration for land capacity.

5. A description of the land use pattern, including text and a diagram or other graphics such as a map.

6. An outline of implementation programs, describing measures necessary to achieve land use objectives and policies, and the timing or staging of plan implementation.

The Land Use Element is the primary policy base for guiding the physical development of the privately owned unincorporated land in San Bernardino County. The Land Use Element correlates all land use issues into a set of coherent development policies. The goals, policies and actions of the Element relate directly to other elements and issues addressed in the General Plan. Although all general plan elements carry equal weight, the land use element is generally considered the most representative of the General Plan, and in practice, it is the most visible and often used element in the General Plan.

Issues/Subissues

In a survey conducted by the Office of Planning through its General Plan Update Newsletter in June 1988, the most critical issue identified by County residents is growth management. Residents' concerns revolve around the capability of the County's natural and man-made resources to support and sustain the predicted future growth of the County. Draft projections show that the County's population is expected to double within the next twenty (20) years and while this predicted growth offers some opportunities, it can, if not managed properly, be accompanied by undesirable effects which may depreciate the quality of life of County residents.

On April 4, 1988, the County established a Growth Management Task Force (GMTF) and charged it to develop a growth management plan (including implementation strategies) for the County. The short as well as long term actions that were considered by the Growth Management Task Force underscore optimum utilization of the County's natural and man-made resources. Some of the strategies considered include:

1. Directing growth to existing urban areas where needed services can readily be provided.

2. Discouraging extension of existing facilities or development of new ones in a leap-frog fashion.

3. Ensuring that new development proceeds at a pace commensurate with the provision of services.

4. Encouraging annexation of lands within the spheres of influence of incorporated cities/towns.

5. Encouraging infilling of existing urban areas.

Policies directed at these strategies were developed and incorporated into this section.

In addition to growth management, each of the following issues is addressed in the Land Use Element to the extent that it is relevant:

- Distribution of housing, business, and industry. (See Section II-D, Housing Element)
- Distribution of open space, including agricultural lands. (See Section II-C, Natural Resources)
- Distribution of mineral resources and provisions for their continued availability. (See Section II-C, Minerals)
- Distribution of recreation facilities and opportunities. (See Section II-C, Open Space/Recreation)
- Location of education facilities. (See the Infrastructure/Improvement Levels Overlay Map)
- Location of public buildings and grounds. (See Infrastructure/Improvement Levels Overlay Map)
- Location of future solid and liquid waste facilities. (See Infrastructure/Improvement Level Overlay Map)
- Identification of areas subject to flooding. (See Hazards Overlay Map)
- Identification of existing Timberland Preserve Zone (TPZ) lands. (Currently, there is no TPZ land designated in San Bernardino County.)

The Land Use Element is divided into two broad sections:

Location, Distribution and Intensity of Land Uses

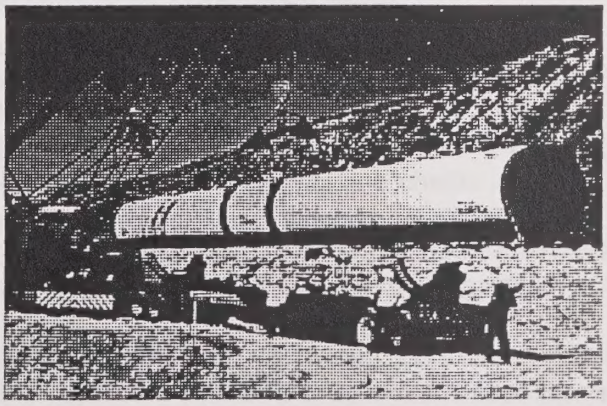
Sets out the purpose, locational criteria and uses permitted within the Official Land Use Districts and the improvement standards required for different levels of development intensity.

Growth Management

Covers growth monitoring, urban/rural service standards, intergovernmental coordination and infilling inducements.

a. LOCATION, DISTRIBUTION AND INTENSITY OF LAND USES

All private lands in the County are designated for specific land uses. In order to ensure that future development proceeds at a pace commensurate with the provision of needed services, the development of any proposed use shall be contingent on the availability or acquisition of required improvements including those specified in Figures II-14, II-15 and II-16 following in this section.



Installation of underground pipeline through the mountains; Cajon

Goals

D-43 *Plan for a compatible and harmonious arrangement of land uses in urban areas by providing a type and mix of functionally well-integrated land uses which meet general social and economic needs.*

D-44 *Plan urban communities as balanced, self-contained areas which have a sufficient mix of urban land uses to support the internal housing, employment, shopping and recreation needs of the region.*

D-45 *Provide a harmonious mix of residential, commercial and industrial land uses which will generate sufficient tax revenues to pay the costs of maintaining desired levels of services and adequate infrastructure facilities.*

D-46 *Preserve and protect the County's historical, archeological and cultural resources in urban areas.*

D-47 *Provide a compatible and harmonious arrangement of land uses in the rural areas and encourage the conservation of natural and cultural resources for the benefit of residents and visitors.*

D-48 *Distribute land use designations in such a way as to minimize the demand for energy consumption and maximize the effectiveness of energy consumed.*

D-49 *Determine what the land is best suited for, match man's activities to the lands' natural suitability, and minimize conflict with the natural environment.*

D-50 *Support measures to preserve the soils essential to agriculture and encourage the protection and preservation of Open Space for recreation uses.*

Policies/Actions

LU-1 Because it is essential to locate new development in areas where the economic strength derived from agriculture, petroleum, rangeland or mineral resources, is not impaired and in order to ensure that the value of the other resources which exist in the County is not diminished, the following policies/actions shall be implemented:

a. Reserve areas identified by the State as prime agriculture soils and depicted on the "important farmland map" for extensive agriculture uses.

b. In areas containing valuable mineral resources, establish and implement conditions, criteria and standards which are designed to protect the access to, and economic use of these resources, provided that the mineral extraction does not result in significant adverse environmental effects and that open space uses have been considered for the area once mining operations cease.

c. Ensure that land use development proposals within the Mineral Resource Overlay Zone (MRZ) shall be in accordance with the adopted mineral resources management policies of the County.

d. Support programs and policies that provide tax and economic incentives to insure long-term retention of agricultural and other resource lands.

e. Encourage owners of agricultural land to enter into Land Conservation contracts with the County to ensure that the property remains in long-term agricultural use.

f. Enact and enforce regulations which will limit development in ecologically sensitive areas such as those adjacent to river or streamside areas, (as shown on the Overlay maps) and hazardous areas such as flood plains, steep slopes, high fire risk areas and geologically hazardous areas.

g. Preserve and encourage the management of suitable land for greenbelts, forest, recreation, flood control, adequate water supply, air quality improvement, habitat for fish, wildlife and wild vegetation.

LU-2 Because the County wants to promote and provide safe, attractive, varied residential areas convenient to public facilties, employment and shopping centers, the following policies/actions shall be implemented:

a. Require that the design and siting of new residential development meet locational and development standards that ensure compatibility with adjacent land uses and community character.

b. Allow varied approaches to residential development in order to foster a variety of housing types and densities and more efficient use of the land.

c. Adopt regulations encouraging innovative residential development; revise the Planned Development Ordinance and continue its use to permit flexible design and siting standards such as setbacks, yards, building relationships, and promote clustering as a means of achieving more efficient housing construction and providing larger areas of usable common open space; and, establish a system to award density bonuses in return for special design, infrastructure improvements, extra amenities, usable open space, or other developer efforts.

LU-3 Because the County wants to promote balanced, efficient commercial developments that are functional, safe, attractive and convenient to shoppers, and are capable of strengthening the local economy and enhancing the quality of life of County residents, the following policies/actions shall be implemented:

a. Promote commercial development that enhances the County's economic base and provides jobs for its residents.

b. Cluster commercial development and support the development of specialty clusters of related and mutually supportive commercial activities in appropriate

locations by means of specific plans, mixed use developments and planned developments.

c. Discourage linear commercial development of shallow depth along streets or highways when it can be shown that it impairs traffic flow or detracts from the aesthetic enjoyment of the surroundings, or if it can be demonstrated that equally effective services can be provided in an alternative configuration.

d. Develop demand estimates for commercial land relative to population patterns.

e. Establish procedures for site plan review to ensure that commercial developments meet locational and development standards that ensure compatibility with adjacent land uses and community character.

LU-4 Because the County wants to promote industrial development in order to expand its employment and tax bases, the following policies/actions shall be implemented:

a. Protect land areas best suited for industrial activity by virtue of their location and other criteria from residential and other incompatible uses.

b. Develop information and data base on industrial land uses, trends, employment and production. Monitor changes in location of industrial lands and demand for such lands, and identify opportunities and constraints for new industrial development.

c. Develop demand estimates for industrial land based on analysis of trends of industrial land absorption and development.

d. Establish Enterprise Zones and facilitate the provision of needed infrastructure facilities and public services (within these zones), and work with the County Department of Economic and Community Development (ECD) to attract industries to these zones.

e. Identify and recommend for adoption an incentive program to encourage industrial/ commercial development which would produce jobs and reduce the need for certain types of infrastructure or services.

f. Direct that San Bernardino County Department of Economic and Community Development continue with its adopted incentive programs geared toward labor intensive industries, including the following:

i) Tax Exempt Industrial Revenue Bonds (IRB)
ii) Taxable Industrial Revenue Bonds
iii) Community Development Block Grant Loan Programs
iv) Business Expansion Revolving Loan Program
v) Floats
vi) State and Federal Loan Programs
vii) County Marketing Incentive Programs

g. Ensure that industrial development meets locational and development standards that ensure their compatibility with adjacent uses and community character.
h. Establish special performance standards for industrial uses to control industrial odors, air pollution, noise pollution, vibrations, dust, hours of operation, exterior storage and other nuisances.

LU-5 Because San Bernardino County has been identified as having a negative jobs/housing balance (meaning a greater level of housing opportunities than employment opportunities), the County will develop a priority application process for commercial and industrial development that would improve the County's jobs/housing balance.

I. Official Land Use Districts

The nineteen (19) land use districts previously used in the Community Plan areas and the twenty (20) zone districts applied in other unincorporated portions of the County have been consolidated in this General Plan into the following fourteen (14) Official Land Use Districts:

- Resource Conservation RC
- Agriculture AG
- Rural Living RL
- Single Residential RS
- Multiple Residential RM
- Office Commercial CO
- Neighborhood Commercial CN
- General Commercial CG
- Service Commercial CS
- Community Industrial IC
- Regional Industrial IR
- Institutional IN
- Planned Development PD
- Floodway FW

These fourteen Official Land Use Districts are applied only to privately owned lands in the County and not to the lands controlled by other jurisdictions. Lands that are controlled by other jurisdictions, including lands controlled by Federal and State agencies as well as incorporated cities are mapped to identify the public agencies that control them. Because the resolution of the digitized maps is forty (40) acres, some privately owned lands (generally less than forty (40) acres in area) may be coded as publicly controlled land in error. Such privately owned lands shall be assigned the Resource Conservation (RC) District or the least intensive Land Use District adjacent to them until an evaluation is conducted to determine the most appropriate land use designation for such lands.

The purpose, locational criteria, **building intensity standards,** and **population density** and the **intended uses** of each land use district are specified. The building intensity standards specified for each Land Use District may be modified by provisions contained in the County Development Code, Title 8. Also, individual Planning Areas may specify higher or lower housing densities, and/or smaller or larger minimum parcel sizes. A brief

description of the intended uses in each land use district is presented herein; the County Development Code, Title 8, contains a complete listing of the uses permitted in each land use district.

No Official Land Use District created by the conversion of previous land use and zone districts shall be required to meet the minimum parcel sizes set forth for each district below. New Official Land Use District changes approved under this General Plan must meet with those minimum size requirements except as provided below.

Resource Conservation (RC)

Purpose

a. To encourage limited rural development that maximizes preservation of open space, watershed and wildlife habitat areas.

b. To identify areas where rural residences may be established on lands with limited grazing potential but which have significant open space values.

c. To prevent inappropriate urban population densities in remote and/or hazardous areas of the County.

d. To establish areas where open space and nonagricultural activities are the primary use of the land, but where agriculture and compatible uses may coexist.

Locational Criteria

a. Areas generally distant from urban centers with existing land uses including limited grazing, passive public and private recreation areas, rural residences and vacation cabins, and watershed, wildlife and open space uses.

b. Areas with steep terrain and limited access.

c. Areas with high scenic values.

d. Areas with limited or no infrastructure facilities and where none are planned within the next twenty years.

e. Areas within any Hazard and/or Resource Overlay except Agriculture Preserve (AP) Overlay.

f. Areas slated by another governmental agency for acquisition or special management.

g. Areas where development rights have been transferred to other areas via development approvals and set aside for open space and recreation uses.

h. Areas shown on the Open Space Overlay in which limited development may occur while maintaining desired open space values.

Building Intensity Standards

a. Maximum Housing Density - 0.025 du/acre. (1 du/40 acres.)

b. Minimum Parcel Size - 40 gross acres.

c. Minimum District Size - 200 gross acres.

d. Maximum Building Coverage - None Specified.

e. Maximum Building Height - 35 feet.

Maximum Population Density Average (MPDA)

On the average, there are 2.75 persons per household in the unincorporated portions of the County. As specified by 2.75 persons per dwelling unit multiplied by the housing density specified by the minimum lot size on the Offical Land Use Districts map, MPDA for this district is approximately 45 persons per square mile.

Intended Uses

This district provides sites for open space, and recreational activities, single-family homes on very large parcels, and similar and compatible uses.

Agriculture (AG)

Purpose

a. To recognize commercial agriculture as a desirable land use type and a major segment of the County's economic base.

b. To identify areas where agriculture is the primary land use but where other secondary uses which are in direct support of agricultural uses may be permitted.

c. To preserve the agricultural base of the County economy and encourage the open space values of these uses.

d. To provide areas for both intensive and extensive agricultural pursuits.

e. To identify areas of commercial (**prime** and nonprime) agricultural soils and operations.

Locational Criteria

a. Areas previously designated as agricultural preserve, whether or not they are under contract.

b. Areas that may be eligible for designation as an agricultural preserve.

c. Areas where the only residential uses allowed are for property owners or employees actively engaged in agricultural operations.

d. Rural areas where existing land uses are mainly truck crops, specialty crops, row and field crops, irrigated crops and pasture, irrigated vineyards and orchards, dry farm orchards and vineyards, dry farm and grain, grazing and rangeland on parcels of 10 acres or greater.

e. Areas where parcel sizes and ownership patterns are sufficiently large to accommodate agricultural operation, buffered from incompatible land uses.

f. Areas with limited infrastructure facilities and where limited public improvements shall be planned or developed in the next 20 years.

g. Areas that are not adjacent to a Single or Multiple Residential (RS or RM) District except where the minimum parcel size in the Residential District is 1 acre or larger.

Building Intensity Standards

a. Maximum Housing Density - 0.10 du/acre. (1 du/10 acre.)

b. Minimum Parcel Size - 10 gross acres.

c. Minimum District Size - 100 gross acres.

d. Maximum Building Coverage - None specified.

e. Maximum Building Height - 35 feet.

Maximum Population Density Average (MPDA)

On the average, there are 2.75 persons per household in the unincorporated portions of the County. As specified by 2.75 persons per dwelling unit multiplied by the housing density specified by the minimum lot size on the Official Land Use Districts map, MPDA for this district is approximately 176 persons per square mile.

Intended Uses

This district provides sites for commercial agricultural operations, agriculture support services, rural residential uses, and similar and compatible uses. Open space and recreation uses may occur on nonfarmed lands within this district.

Rural Living (RL)

Purpose

a. To encourage appropriate rural development where single family residential is the primary use.

b. To identify areas where rural residences may be established and where associated related animal uses may be permitted.

c. To prevent inappropriate demand for urban services.

d. To establish areas where nonagricultural activities are the primary use of the land, but where agriculture and compatible uses may coexist.

Locational Criteria

a. Areas generally adjacent to urbanizing centers, with existing land uses including limited agriculture, mining and quarrying, energy production operations, public and private recreation areas, rural residences and vacation cabins, and, watershed, wildlife and open space uses.

b. Areas with limited, low-density development or mountainous areas with moderate slopes, or soils of poorer quality than in agricultural areas.

c. Areas where rural residences are the primary use of the land, but where agriculture and other compatible uses such as hunting clubs, dude ranches, RV parks, etc., may be found or located.

d. Areas with soil conditions suitable for limited agriculture capability, which may nevertheless be eligible for Agricultural Preserve status.

e. Areas with partial public services and limited public improvements.

Building Intensity Standards

a. Maximum Housing Density - 0.40 du/acre. (1 du/2.5 acres)

b. Minimum Parcel size - 2.5 gross acres.

c. Minimum District size - 30 gross acres.

d. Maximum Building Coverage - 20%.

e. Maximum Building Height - 35 feet.

Maximum Population Density Average (MPDA)

On the average, there are 2.75 persons per household in the unincorporated portions of the County. As specified by 2.75 persons per dwelling unit multiplied by the housing density specified by the minimum lot size on the Official Land Use Districts map, MPDA for this district is approximately 720 persons per square mile.

Intended Uses

This district provides sites for rural residential uses, incidential agricultural uses, and similar and compatible uses.

Single Residential (RS)

Purpose

a. To provide areas for single-family homes on individual lots.

b. To provide areas for accessory and nonresidential uses that complement single residential neighborhoods.

c. To discourage incompatible nonresidential uses in single-family residential neighborhoods.

Locational Criteria

a. Areas that are not adjacent to Regional Industrial or Agriculture District except where the ultimate minimum residential parcel sizes shall be 1 acre or larger.

b. Areas that are within one mile of major arterial and/or existing major public transit route.

Building Intensity Standards

a. Maximum Housing Density - 4 du/acre.

b. Minimum Net Parcel Size - 7,200 sq. ft.

c. Minimum District Size - 10 acres.

d. Maximum Building Coverage - 40%.

e. Maximum Building Height - 35 feet.

Maximum Population Density Average (MPDA)

On the average, there are 2.75 persons per household in the unincorporated portions of the County. As specified by 2.75 persons per dwelling unit multiplied by the maximum housing density specified for the RS District, MPDA for this district is 7,040 persons per square mile.

Intended Uses

This district provides sites for single-family residential uses, incidential agricultural and recreational uses, and similar and compatible uses.

Multiple Residential (RM)

Purpose

a. To provide areas for attached, detached, and/or mixed residential development with a wide range of densities and housing types.

b. To efficiently relate higher density residential development to community utilities and facilities as well as site characteristics.

c. To locate parcels appropriate for development at higher residential densities in closer proximity to community services and facilities.

d. To offer a wide range of residential living environments.

e. To allow diverse nonresidential activities compatible with a multi-family neighborhood.

Locational Criteria

a. Areas of existing multi-family development.

b. Areas that have, or are programmed to receive full urban services.

c. Areas with slopes generally less than 16%. (Increased lot sizes shall be required as slope increases).

d. Areas in centralized urban locations having close proximity to major commercial and public facilities, where urban infrastructure, circulation and neighborhood and community facilities that are capable of handling high density residential development are located or planned.

e. Areas that are not adjacent to Regional Industrial (IR) District, Agriculture (AG) District and/or mining operations except when the area is large enough to leave

a buffer yard of 75 feet between the Districts and/or uses, or when the **Open Space Ratio (OSR)** of the total multiple family development is 0.60 or greater.

f. Areas adjacent to, or near a major arterial and/or existing major public transit route.

Building Intensity Standards

a. Maximum Housing Density - 14 du/ac and a min. of 3,000 sq. ft/du.

b. Minimum Net Parcel Size - 10,000 sq. ft.

c. Minimum District Size - 10 gross acres.

d. Maximum Building Coverage - 60%.

e. Maximum Building Height - 35 feet.

Maximum Population Density Average (MPDA)

On the average, there are 2.75 persons per household in the unincorporated portions of the County. As specified by 2.75 per dwelling unit multiplied by the (RM) District Land Use Map Density specified by the minimum size of each dwelling unit on the Official Land Use Districts map, MPDA for this district is 24,640 persons per square mile.

Intended Uses

This district provides sites for multiple residential uses, single residential uses, mixed residential uses, and similar and compatible nonresidential uses and activities.

Neighborhood Commercial (CN)

Purpose

To provide suitable locations for retail and service commercial establishments intended to meet daily convenience needs of a residential area.

Locational Criteria

a. Areas adjacent to or in close proximity to residential districts/uses.

b. Areas adjacent to a major arterial street or any road intersection.

c. Areas with less than 20% slopes.

Building Intensity Standards

a. Minimum Parcel Size - 1 acre.

b. Minimum District Size - 1 acre.

c. Maximum Building Coverage - 40%.

d. Maximum Building Height - 35 ft.

e. Maximum Floor Area Ratio (FAR) - 0.47.

Maximum Population Density Average (MPDA)

Residential uses, except Social Care facilities, hotels, motels and other transient lodgings are not permitted in commercial districts. MPDA for this District is 1,000 persons per square mile.

Intended Uses

This district provides sites for retail trade and personel services, repair services, lodging services, professional services, recreation and entertainment services, and similar and compatible uses.

Office Commercial (CO)

Purpose

a. To provide office and space for professional groups in community centers and civic areas.

b. To allow for public and quasi-public uses, which are compatible with a centralized urban location or a transitional area.

c. To provide for the concentration of office uses for their mutual benefit and convenience as well as convenience to the general public.

d. To establish areas for the conduct of business in a manner that will minimize conflicts and adverse impacts on other land uses.

e. To encourage conversion and renovation of historic or architecturally significant buildings which are located in office and professional areas.

Locational Criteria

a. Areas set aside to support concentration of office uses, making office and professional activities more visible and easily accessible to the public.

b. Peripheral areas of central business districts near to commercial and public uses.

c. Areas between a residential district and a major highway, or more intensive commercial or industrial districts.

d. Areas of mixed, nonresidential uses compatible with business activities.

e. Areas with primary access from major arterial or collector, avoiding the use of local residential streets for services and deliveries.

f. Areas adjacent to major arterial, major divided or freeway and/or that are within one half (1/2) mile of a public transit route.

g. Areas with full urban services and infrastructure facilities.

Building Intensity Standards

a. Minimum Parcel Size - 5 acres.
Minimum Parcel Size may be less than 5 acres if an application for a PD or CUP is filed concurrently with subdivision application.

b. Minimum District Size - 5 gross acres.

c. Maximum Building Coverage - 60%.

d. Maximum Building Height - 60 feet.

e. Maximum Floor Area Ratio (FAR) - 0.90.

Maximum Population Density Average (MPDA)

Residential uses, except Social Care facilities, hotels, motels and other transient lodgings are not permitted in Commercial districts. MPDA for this district is 640 persons per square mile.

Intended Uses

This district provides sites for professional services, and similar and compatible uses.

Rural Commercial (CR)

Purpose

To provide sites in rural areas where a range of commercial services intermixed with residential uses can be established, which are limited in scope and intensity and meet the needs of the remote population and the traveling public.

Locational Criteria

a. Areas that are classified rural in this plan (Improvement Levels 4 and 5) and have a low concentration of population not exceeding 500 people per square mile.

b. Areas along major remote thoroughfares or intersections.

c. Areas where a mixture of uses can coexist without conflict and there is no need to use multiple commercial districts to separate land uses.

d. Areas where there is no competing commercial core.

e. Areas where special design considerations are not necessarily required to ensure compatibility with surrounding land uses and the community.

f. Areas not within any city sphere of influence.

Building Intensity Standards

a. Minimum Parcel Size - 2.5 acres.
Minimum parcel size may be less than 2.5 acres if an application for a PD or CUP is approved concurrently with a subdivision application.

b. Minimum District Size - 2.5 acres.

c. Maximum Building Coverage - 60%.

d. Maximum Building Height - 35 ft.

e. Maximum Floor Area Ratio (FAR) - 1.20

Maximum Population Density Average (MPDA)

This commercial district allows primary residential uses to be intermixed with commercial uses. MPDA for this District is 500 persons per square mile.

Intended Uses

To provide suitable locations for retail and personal services, professional services, open lot services, lodging services, recreation and entertainment services, contract construction

services and transportation services to meet the needs of the rural population. Residential and agricultural uses are allowed but are secondary in importance to the commercial uses.

Highway Commercial (CH)

Purpose

To provide suitable locations for retail and service commercial establishments intended to meet the daily convenience needs of the traveling public.

Locational Criteria

a. Areas occupied or intended to be occupied by a relatively contiguous grouping of businesses which provide transient services to travelers on major highways.

b. Areas designed to preserve a block of land for the use of small, somewhat isolated transient commercial uses along major highways.

c. Areas that are classified rural or rurban in this plan (Improvement Levels 3-5).

Building Intensity Standards

a. Minimum Parcel Size - 5 acres.
Minimum parcel size may be less than 5 acres if an application for a PD or CUP is approved concurrently with a subdivision application.

b. Minimum District Size - 5 acres.

c. Maximum Building Coverage - 65%.

d. Maximum Building Height - 60 ft.

e. Maximum Floor Area Ratio (FAR) - 1.20.

Maximum Population Density Average (MPDA)

Residential uses, except Social Care facilities, hotels, motels and other transient lodgings are not permitted in commercial districts. MPDA for this District is 1,000 persons per square mile.

Intended Uses

This district provides sites for retail trade and personal services, repair services, lodging services, recreation and entertainment services, transportation services, and similar and compatible uses.

General Commercial (CG)

Purpose

Provide appropriately-located areas for stores, offices, service establishments and amusements, offering a wide range of commodities and services scaled to meet neighborhood and community needs.

Locational Criteria

a. Concentrated retail business and service areas that supply daily community commercial needs.

b. Areas of retail commercial uses in central business districts providing local and regional trade services.

c. Areas adjacent to a major arterial street, highway or freeway or at the intersection of two major arterial streets.

d. Areas with full urban services and infrastructure facilities.

Building Intensity Standards

a. Minimum Parcel Size - 5 acres.
Minimum Parcel size may be less than 5 acres if an application for a PD or CUP is filed concurrently with subdivision application.

b. Minimum District Size - 5 gross acres.

c. Maximum Building Coverage - 60%.

d. Maximum Building Height - 60 ft.

e. Maximum Floor Area Ratio (FAR) - 1.20.

Maximum Population Density Average (MPDA)

Residential uses, except Social Care facilities, hotels, motels and other transient lodgings, are not permitted in Commercial districts. MPDA for this district is 1,500 persons per square mile.

Intended Uses

This district provides sites for stores, lodging services, office and professional services, recreation and entertainment services, wholesaling and warehousing, contract/construction services, transportation services, open lot services, and similar and compatible uses.

Service Commercial (CS)

Purpose

a. To provide suitable areas for a mixture of commercial and industrial use including manufacturing uses, where they will not adversely affect surrounding properties.

b. To provide suitable locations for retail, wholesale, intensive commercial and service establishments.

Locational Criteria

a. Areas normally characterized by heavy commercial, service, and small-scale industrial uses.

b. Areas where uses generally serve occasional needs rather than day-to-day needs.

c. Areas and uses that will not create incompatible land use mixtures.

d. Areas located to promote infill and restructuring of existing heavy and service commercial areas and discourage proliferation of scattered service uses.

e. Areas appropriate for developments using planned development concepts where unified landscaping, signing, building design, service capabilities and adequate circulation can be ensured.

f. Areas located to have access from major streets and/or major arterial streets to avoid use of residential streets for access or deliveries.

g. Areas that are either at the intersection of two major arterial streets or adjacent to a major arterial street, major divided street or Freeway, or served by railroad access.

Building Intensity Standards

a. Minimum Parcel Size - 5 acre.
Minimum parcel size may be less than 5 acres if an application for a PDor CUP is filed concurrently with subdivision application.

b. Minimum District Size - 5 gross acres.

c. Maximum Building Coverage - 65%.

d. Maximum Building Height - 60 ft.

e. Maximum Floor Area Ratio (FAR) - 1.20.

Maximum Population Density Average (MPDA)

Residential uses, except Social Care facilities, hotels, motels and other transient lodgings, are not permitted in Commercial districts. MPDA for this district is 1,500 persons per square mile.

Intended Uses

This district provides sites for a mixture of heavy commercial uses and light industrial uses including light manufacturing uses, and similar and compatible uses.

Community Industrial (IC)

Purpose

a. To identify and establish areas suited to industrial activities.

b. To provide opportunities for the concentration of industrial uses to enable efficient use of transportation, circulation and energy facilities.

c. To protect adjacent land uses from harmful influences, as well as to prevent the intrusion of incompatible uses into industrial areas.

Locational Criteria

a. Areas located within urban areas where full urban services are available.

b. Areas of existing industrial uses.

c. Areas physically suited for industrial activities.

d. Areas that are or can be adequately buffered from adjacent uses in other land use categories.

e. Areas adjacent to major transportation terminals and energy facilities.

f. Areas where industrial traffic is not routed through residential or other areas not compatible with industrial traffic.

g. Areas that are at the intersection or have direct access to major arterial or major divided streets or a Freeway, or are served by railroad access.

h. Areas appropriate for development of large acreages using the concepts of planned development to provide industrial parks with unified landscaping, signing, building design, services, infrastructure, and circulation.

i. Areas located peripheral to urban areas where residential or long-term agricultural uses are inappropriate.

j. Areas that have stable soil with average slope of 10% or less.

Building Intensity Standards

a. Minimum Parcel Size - 5 acres.
Minimum parcel size may be less than 5 acres if an application for a PD or Cup is filed concurrently with subdivision application.

b. Minimum District Size - 5 gross acres.

c. Maximum Building Coverage - 70%.

d. Maximum Building Height - 75 ft.

e. Maximum Floor Area Ratio (FAR) - 97%.

Maximum Population Density Average (MPDA)

Residential uses, except caretaker or accessory residential uses (one per legally created parcel) are not permitted in the IC District. MPDA for this district is 640 persons per square mile.

Intended Uses

This district provides sites for light industrial uses such as light manufacturing uses, wholesale/warehouse services, contract/ construction services, transportation services, agriculture support services, incidential commercial, and accessing residential uses, and similar and compatible uses.

Regional Industrial (IR)

Purpose

a. To identify and establish areas suitable for major industrial centers or a single large industrial plant having two hundred thousand (200,000) or more square feet of floor area, or more than five hundred (500) employees on any shift.

b. To provide sites for industrial uses which have severe potential for negative impacts on any uses which would locate relatively close to them.

c. To identify areas intended to be eventually utilized for industrial purposes to support the public need for manufacturing uses and employment opportunities.

Locational Criteria

a. Areas located within urban areas where full urban services are available.

b. Areas of existing industrial uses.

c. Areas physically suited to industrial activities.

d. Areas that are or can be adequately buffered from adjacent uses in other land use categories.

e. Areas adjacent to major transportation terminals and energy facilities.

f. Areas where industrial traffic is not routed through residential or other areas not compatible with industrial traffic.

g. Areas that have direct access to major arterial or major divided streets or Freeways, or are served by railroad access.

h. Areas appropriate for development of large acreages using the concepts of planned development to provide industrial parks with unified landscaping, signing, building design, services, infrastructure, and circulation.

i. Areas located peripheral to urban areas where residential or long-term agricultural uses are inappropriate.

j. Areas that have stable soil with average slope of 10% or less.

Building Intensity Standards

a. Minimum Parcel Size - 5 acres.
Minimum parce size mey be less than 5 acres if an application for a PD or CUP is filed concurrently with subdivision application.

b. Minimum District Size - 30 gross acres.

c. Maximum Building Coverage - 70%.

d. Maximum Building Height - 150 ft.

e. Maximum Floor Area Ratio (FAR) - 0.94.

Maximum Population Density Average (MPDA)

Residential uses, except caretaker units or accessory residential uses (one per legally created parcels) are not allowed in the IR District. MPDA for this district is 256 persons per square mile.

Intended Uses

This district provides sites for heavy industrial uses that have the potential to generate severe negative impacts, incidential commercial uses, agricultural support services, salvage operations, and similar and compatible uses.

Institutional (IN)

Purpose

a. To identify existing lands and structures committed to public facilities and public agency uses and proposed public facilities, where site selection has not occurred.

b. To provide areas for development of future public facilities to meet public needs.

c. To enable identification of potential facility locations that satisfy both community and regional needs relating to the population levels being served.

d. To identify potential facility sites in advance of immediate need so that facility design and location may be based on the character of the area being served and can also be compatible with and supportive of the comprehensive plans of agencies within the facility service area.

Locational Criteria

a. Areas with existing public or quasi-public facilities and uses, or publicly-owned lands intended for development with public facilities.

b. Areas that satisfy the specialized site location requirements of public facilities, where facilities will be visible and accessible to their users.

Building Intensity Standards

a. Minimum Parcel Size - None Indicated.

b. Minimum District Size - None Indicated.

c. Maximum Building Coverage - 70%.

d. Maximum Structure Height - 150 ft.

e. Maximum Floor Area Ratio - 1.20.

Maximum Population Density Average (MPDA)

Residential uses, except hospitals, prisons, college campuses/dormitories, and day care facilities/boarding schools are not permitted in the Institutional district. MPDA for this district is 1,000 persons per square mile.

Intended Uses

This district provides sites for public and quasi-public uses facilities, and similar and compatible uses.

Planned Development (PD)

Purpose

a. To allow a combination of residential, commercial, and/or manufacturing activities that maximize the utilization of natural as well as man-made resources.

b. To identify areas suitable for large scale planned developments and to allow cluster type development in order to provide more open space.

c. To allow joint planning efforts such as Specific Plans, Area Plans, etc., among adjacent land owners and jurisdictions.

Locational Criteria

Areas that need/require special planning studies.

Building Intensity Standards

a. Minimum Parcel Size - 40 acres.

b. Minimum District Size - 40 acres.

c. Maximum Building Coverage - 70%.

d. Maximum Building Height - 50 ft.

e. Maximum Floor Area Ratio (FAR) - 1.20.

f. Maximum housing density will vary according to the Planned Development or Specific Plan, but shall not exceed 14 d.u/acre. In the interim, Maximum housing density shall be one (1) dwelling unit (d.u.) per parcel.

Maximum Population Density Average (MPDA)

The MPDA will vary, but shall not exceed 24,560 persons per square mile. This assumes a maximum housing density of 14 du/acre multiplied by 2.75 persons per dwelling unit (d.u.).

Intended Uses

This district provides sites for a combination of residential, commercial, industrial, agricultural, open space and recreation uses, and similar and compatible uses.

Floodway (FW)

Purpose

a. To identify and preserve areas for flood flow, such as the channel of a river or drainage way, and those portions of the floodway adjoining the channels which are required to effectively carry the discharge of floodwater or floodflow of any river or stream.

b. To protect floodways from encroachment by land uses which would be endangered when floodway channels are full or are overflowing into that portion of an adjacent floodplain that becomes part of the channel.

c. To prohibit occupancy or the encroachment of any structure, improvement, or development that would unduly affect the capacity of the floodway or unduly increase flood heights.

d. To prevent the loss of life or property caused by floodwater runoff.

e. To designate natural and man-made floodway and their adjacent areas on a map in order to coordinate flood drainage and land development.

Locational Criteria

a. Areas identified as major flood channels by the Drainage Section of the County Land Management Department.

b. Areas where extensive flooding conditions require the curtailment of development.

c. Areas that have been identified, mapped, and designated as floodway by the Federal Flood Insurance Administration.

Building Intensity Standards

a. Maximum Housing Density - applicable.

b. Minimum Parcel Size - 10 acres.

c. Minimum District Size - None specified.

d. Maximum Building Coverage - None specified.

e. Maximum Structure Height - 35 feet.

Maximum Population Density Average MPDA

Residential uses except houseboats are not permitted in the Floodway (FW) District. MPDA for this district is 10 persons per square mile.

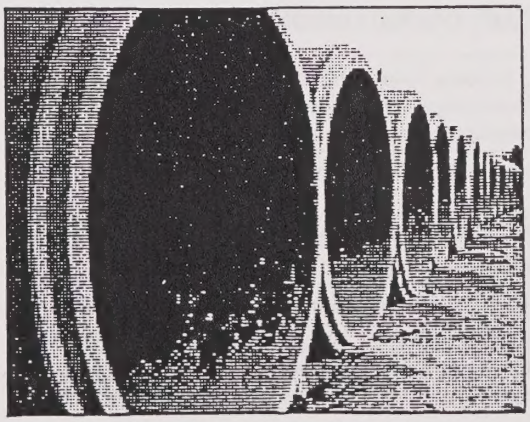
Intended Uses

This district provides sites for animal raising, grazing, crop production, and similar and compatible uses.

II. Improvement Standards

Additional public facilities and services are usually required when new residential, commercial or industrial uses are established. In several areas, major public service and facility deficiencies already exist. Projected growth may add to this problem and may create new problems in other areas as well. In order to ensure that future developments do not become fiscal liabilities to County residents, policies were developed to require that future development proceeds at a pace commensurate with the provision of services.

The County recognizes that there is a direct relationship between the intensity of land uses and the amounts of facilities and services that are needed to support such uses. Analyses of subdivision and development activities in the County show that there are basically five levels of development intensity, ranging from very high density developments in urban areas, to very low density developments in very rural areas. The amount of infrastructure facilities and services required in areas with high density development is significantly more than that required in areas with low density development. Thus, the County established on-site and off-site improvement standards that are deemed essential in each of the five different levels of development intensity mentioned earlier. This system of matching development intensity with essential improvements is referred to as the "Improvement Level System (ILs)."



Concrete pipes lined up along a street; Chino

Five ILs were established to correspond with the five different intensity levels. At the one end of the scale, IL 1 is applied to very urban areas, while at the other end of the scale, IL 5 is applied to very rural areas. Improvement Levels are assigned to an area based on the long-term planned development and lifestyle commitment of the area. Future development is expected to provide the appropriate and applicable infrastructure facilities and services prior to, or in concert with anticipated or proposed development. The Improvement Level for each area is as depicted on the Infrastructure/Improvement Levels Overlay Map.

Figures II-14, II-15, and II-16 list the required improvements for the five different levels of development intensity in the Valley, Mountain and Desert respectively. The Improvement Levels will be applied to all applications, including all building permits, in the future. Initially, however, they will be applied to the following:

- All divisions of land
- All commercial, industrial, and institutional use applications
- Multiple family residential use applications
- Discretionary single-family residential use applications

Applicants requesting building permits for single-family residential units on parcels that were legally created prior to the adoption of this plan shall be exempt from Improvement Level requirements unless required by various departmental standards such as the interim development standards adopted in September, 1988. The Improvement Level Standards shall be implemented by standards and guidelines available with applications.

Application of Improvement Levels

Improvement Level (IL) 5
Level 5 is applied to areas with little or no development potential, and where only very sparse development is expected in the long term. These areas are typically in remote or inaccessible locations, or in relatively vast open space areas where severe environmental and physical constraints or lack of resources virtually preclude development.

Typical Ultimate Lot Size: Greater than 20 Acres

Improvement Level (IL) 4

Level 4 is applied to areas where only a limited amount of low-density development is planned or anticipated due to resource constraints and/or a desire to maintain a rural living environment. Required improvements are intended to protect the public health and safety and focus primarily on safe access and the availability of local or on-site water. These areas are not expected to convert to higher densities during the term of the Plan.

Typical Ultimate Lot Sizes - 5 Acres to 20 Acres

Figure II-14
Improvement Standards - Valley (shown on Infrastructure Overlay)

	IMPROVEMENT LEVELS				
STANDARDS	**1**	**2**	**3**	**4**	**5**
Legal and physical access	●	●	●	●	●
Grants of Easements*	●	●	●	●	●
Paved access	●	●	●**		
Curbs and gutters	●	●	●***		
Sidewalks	●	1/2****			
Street lights at standard spacing	●				
Street lights at midblock		●			
Street lights at intersections only			●		
Water purveyor	●	●	● or		
Substantiated well water			●*****	●	
Sewer******	● or	● or	● or		
Septics	●	●	●	●	●
Drainage improvements**	●	●	●		
Paved dip section	●	●	●	●	
Fireflow	●	●	●		

*Includes necessary rights-of-way for transportation and circulation, drainage and flood control facilities, and utilities.

**The requirement will be waived in areas where a subregional plan and fee or other financing mechanism exists to provide necessary improvements. Provided, however, that the Transportation/Flood Control Department may require additional improvements if necessary for reasons of health and safety.

***Curbs and gutters shall be required by the Transportation/Flood Control Department if necessary for reasons of health and safety.

****Sidewalks may be required on both sides of the street by the Transportation/Flood Control Department if necessary for reasons of health and safety.

*****Individual well allowed if site does not overlie aquifer in state of overdraft.

******Sewers shall be required as necessary by the EHS Department if necessary for reasons of health and safety.

Figure II-15
Improvement Standards - Mountain (shown on the Infrastructure Overlay)

	IMPROVEMENT LEVELS				
STANDARDS	1	2	3	4	5
Legal and physical access	●	●	●	●	●
Grants of easements*	●	●	●	●	●
Paved access	●	●	●		
Curbs and gutters***	●	●			
Sidewalks***	●	1/2			
Street lights at intersections only	●	●			
Water purveyor	●	●	● or		
Substantiated well water			●	●	
Sewer*****	● or	● or			
Septics	●	●	●	●	●
Drainage improvements**	●	●	●		
Paved dip section	●	●	●	●	
Fireflow	●	●	●		

*Includes necessary rights-of-way for transportation and circulation, drainage and flood control facilities, and utilities.

**The requirement will be waived in areas where a subregional plan and fee or other financing mechanism exists to provide necessary improvements. Provided, however, that the Transportation/Flood Control Department may require additional improvements if necessary for reasons of health and safety.

***Curbs, gutters and sidewalks may be required by the Transportation/Flood Control Department if necessary for reasons of health and safety. Asphalt berms may be required where curbs and gutters are not required.

****Individual well allowed if site does not overlie aquifer in state of overdraft.

*****Sewers shall be required as necessary by the EHS Department if necessary for reasons of health and safety.

Figure II-16
Improvement Standards - Desert (shown on Infrastructure Overlay)

	IMPROVEMENT LEVELS				
STANDARDS	1	2	3	4	5
Legal and physical access	●	●	●	●	●
Grants of easements*	●	●	●	●	●
Paved access	●	●	●**		
Curbs and gutters	●	●	●***		
Sidewalk	●	1/2****			
Street lights at standard spacing	●				
Street lights at intersections only		●			
Water purveyor	●	●	● or		
Substantiated well water			●*****	●	
Sewer******	● or	● or			
Septics	●	●	●	●	●
Drainage improvements**	●	●	●		
Fireflow	●	●	●		

*Includes necessary rights-of-way for transportation and circulation, drainage and flood control facilities, and utilities.

**The requirements will be waived in areas where a subregional plan and fee or other financing mechanism exists to provide necessary improvements.

***Curbs and gutters shall be required by the Transportation/Flood Control Department if necessary for reasons of health and safety.

****Sidewalks may be required on both sides of the street by the Transportation/Flood Control Department if necessary for reasons of health and safety.

*****Individual well allowed if site does not overlie aquifer in state of overdraft.

******Sewers shall be required as necessary by the EHS Department if necessary for reasons of health and safety.

*******Provided, however, that the Transportation/Flood Control Department may require additional improvements if necessary for reasons of health and safety.

Improvement Level (IL) 3

Level 3 is typically applied to areas that may be considered "transitional," i.e., areas that are difficult to label either rural or urban. An example of a Level 3 area might be a low-density residential area that is near an urban or urbanizing area. Such an area might have a significant amount of low-to-moderate density residential development or large acreage which is expected to convert to a higher density in the next five to ten years.

Typical Ultimate Lot Sizes: 1 acre to 5 Acres

Improvement Level (IL) 2

Level 2 is applied to areas where the planned density of development in the short term is relatively high, and areas that are partially developed and/or subdivided at an established land use pattern predominantly of one acre or less in size, and where existing infrastructure facilities and distribution systems are largely in place.

Typical Ultimate Lot Size: 1/2 Acre to 1 Acre

Improvement Level (IL) 1

Level 1 is applied to those areas planned for the most dense and highest intensity level of development. This may include large areas designated for commercial, industrial or multi-family residential uses, city spheres of influence areas planned for high-density uses, and higher-density single family residential uses. In most cases, IL 1 is suitable in what may be considered the core areas of established urban or urbanizing communities.

Typical Ultimate Lot Size: less than 1/2 Acre.

Exemptions

Often land divisions occur where the land is divided into parcels larger than the minimum size allowed in the district. Where this occurs, strict application of the standards of the Improvement Level may not be necessary. For example, in areas designated IL 1 and 2, land may be divided into parcels of 5 acres and greater and be subject to the IL 4 standards. In areas designated IL 3, land may be divided into parcels of 10 acres and greater and meet the IL 4 standards. In both of the above instances, any of the standards of the Improvement Level in which the land lies may be applied if required for reasons of public health and safety.

III. Maps

The General Plan Text is supported by a series of thematic maps which are adopted as part of the General Plan database. In all, there are five series of maps:

a. The Official Land Use Districts Map

b. Composites of Overlays for:

i) Hazards/Noise
ii) Resources
iii) Transportation/Circulation.
iv) Infrastructure/Improvement Levels

The Official Land Use Districts Map is a graphic representation of the location and distribution of the Official Land Use Districts that are applied in the County. The boundaries of the Official Land Use Districts are parcel specific. This map serves as the primary base map of the Countywide Map Atlas system.

Overlays are applied to areas with special or unique physical characteristics. In such areas, special policies, and special development and performance standards may be established to protect public health and safety.

Hazards Overlay Maps

The Hazards Overlay Maps depict areas of known hazards, both natural and man-made. They include the following:

Geologic

a. Seismic

i) Alquist-Priolo Special Studies Zones - Those areas of known active or potentially-active faults that have been studied and mapped by the California Division of Mines and Geology. These include, but are not limited to, areas presently within the Alquist-Priolo Study Zone series which are used as a guide to more precise geologic investigations when land is subdivided or developed. (Other areas of active faults will be included when identified, studied and mapped.)
ii) Liquefaction - Areas where a combination of high groundwater, sandy soil types and a high degree of seismic activity combine to form a high susceptibility to liquefaction, as identified by the State Division of Mines and Geology.

b. Landslide

Areas identified as having existing landslides or highly susceptible areas as identified by the US Geological Survey. An ongoing mapping process will identify and include more areas as studies are completed.

Flood

Those areas identified as Floodplain areas (with the path of a 100 year flood) by the Federal Emergency Management Agency on Flood Insurance Rate Maps. Floodway areas are shown on the Official Land Use Districts Map as a separate Land Use District.

Fire

All those areas subject to wildland/urban intermix and high fire hazard as identified by the County Fire Warden including but not limited to areas previously designated in Mountain Fire Zone, and the Hillside and Foothill Fire Hazard Zones.

Noise

Aircraft Noise Contours are the only noise contours shown on the Hazards Overlay Maps at this time. Tabulated contours for both traffic and railroad noise are found in the complete Noise Element (under separate cover).

Aviation Safety Areas

These are, in many cases, concurrent with the Aircraft Noise Contours and are more extensively explained in Section II-B which contains the policies on Aviation Safety and includes a listing of all areas identified by the Federal Aviation height limitations imposed by Part 77 of the Federal Aviation Regulations. These outlines generally identify areas influenced by operations within all public airports operating within San Bernardino County and its cities. They provide an initial basis in many cases for more precise delineation of airport land use planning areas administered by the Airport Land Use Commissions of San Bernardino County.

While this list provides a complete list of mapped hazards now available, other hazards may be added as studies are completed and additional hazards mapped. (See Section II, A and B Policies.) These maps show areas where a reasonable concern is indicated. However the sources for this data were generally mapped on USGS quad sheets and are, therefore, not parcel specific. Each overlay has a varying degree of accuracy which is noted on the overlay maps.

Natural Resources Overlay Maps

The Natural Resources Overlay Maps will depict the following:

Biological

- Habitat areas of threatened, endangered and rare plants and animals and special habitat areas, as identified by federal and state agencies and county code.

Cultural

- Archaeological and historic resources as identified by the County Museum Archaeological Information Center.

Paleontological

- Areas identified by the County Museum Curator of Earth Sciences as having known or potential resource sensitivity.

Open Space/Recreation/Scenic - Regional Trail Alignments, Open Space Areas, Wildlife Corridor Zones, Green Belt Areas, Buffer Areas

- Open space may be shown as areas mapped for fire, seismic and flood hazards, Scenic Routes and Institutional designations.

Important Farmlands

- Areas designated in the Important Farmland Map Series.

Agricultural Preserves

- Areas designated as Agricultural Preserves by the Board of Supervisors.

Mineral Resource Zones (MRZ)

- Areas mapped by the State Geologist are classified, designated, and identified as mineral resources areas.

Water Resources

- Rivers, streams, lakes and reservoirs.

Transportation/Circulation Maps

The General Plan Transportation/Circulation Maps utilize a computerized mapping system developed by the Land Management Department's Data Systems Section. The hierarchy of roads and highways is shown in tabular form (Policy TC-1) in the Transportation/Circulation Chapter, Section II D. Road designations on the maps indicate the ultimate planned road facility. A road shown as "existing" will indicate that there is an existing road on the ground, however, the existing road may not necessarily be built to its ultimate width. A road shown as "proposed" will indicate that there is no road on the ground at present.

The Major Arterial Highway, Major Divided Highway, Major Highway, Secondary Highway, and Controlled/Limited Access Collector designations generally apply only in the Valley and Desert areas of the County; in some cases these highways are utilized within the Mountain areas of the San Bernardino National Forest, as in the case of State Highway 138. The Mountain Major Highway and Mountain Secondary Highway designations apply only within the National Forest boundaries of the San Bernardino and San Gabriel Mountains. Freeways and State Highways with special standards or conditions can apply anywhere. In addition to the above highways, the Transportation/Circulation Maps include public use airports, major military airports, rail lines, Park and Ride facilities, and terminals for rail and bus transportation.

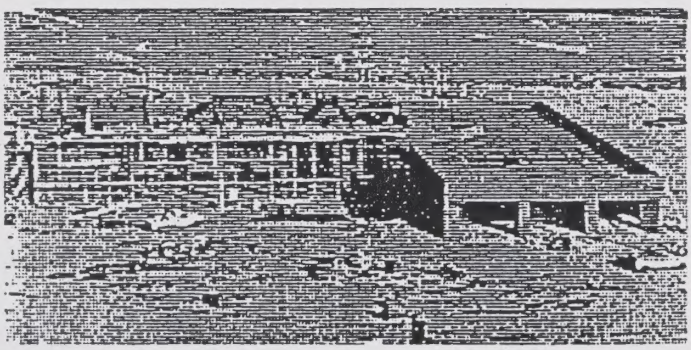
Infrastructure/Improvement Level Maps

The combined Infrastructure/Improvement Level Maps show the general location of waste disposal sites (both County and non-County operated), sewage treatment plants, public schools (unincorporated areas only), homeless shelters in operation as of February, 1988, and the Improvement Level (IL) areas 1 through 5 which are explained in this Section.

The IL areas are tied to the availability of the basic infrastructure required for development (roads, water, and wastewater facilities). Required levels of service are established for all areas ranging from the most intense urban areas (IL 1) to the least intense rural areas (IL 5). Development can be permitted to the degree allowed by a site's official land use designation only when infrastructure facilities are or planned to be in place at levels consistent with the designated IL areas.

b. GROWTH MANAGEMENT

I. Growth Monitoring



Construction of new fire station; Ontario

According to SCAG estimates, the population of the County will be 2.2 million in the year 2010. Of this, 977,470 (44.37%) will be in the unincorporated portion of the County. This figure, which is an increase of 548,803 over the 1988 figure of 428,667, does not account for new incorporations or annexations. This predicted population growth will result in the conversion of significant amounts of vacant land to residential, commercial and industrial development. Also, additional demands will be placed on the existing infrastructure facilities such as water/sewer systems and roads. Traffic congestion is predicted to increase significantly in and around economic activity locations, and along commute-travel paths, thus exacerbating the air pollution problems and increasing the demand for nonrenewable energy resources. There is also a potential groundwater overdraft and severe shortage of potable water supplies in certain areas.

The County is currently developing three new systems: the Master Environmental Assessment (MEA), the Development Monitoring and Forecasting System (DMFS), and the Infrastructure Assessment and Reporting System (IARS). These systems are expected to monitor the County's population growth, its natural resources, and the carrying capacity of the existing infrastructure facilities in the County with the intent of coordinating and correlating them with future development. These three components are designed to complement the General Plan.

Goals

D-51 *Ensure that the quality of life of County residents is not depreciated by future growth.*

D-52 *Ensure that future development proceeds at a pace consistent with the provision or acquisition of required infrastructure facilities and public services.*

Policies/Actions

LU-6 Because the County desires to manage its future growth in order to ensure that the quality of life of its residents is enhanced, and because the County wants to optimize utilization of its existing natural and man-made resources the following policies/ actions regarding data collection, evaluation and retrieval shall be initiated in the third year (1989-90) of the ongoing General Plan maintenance program:

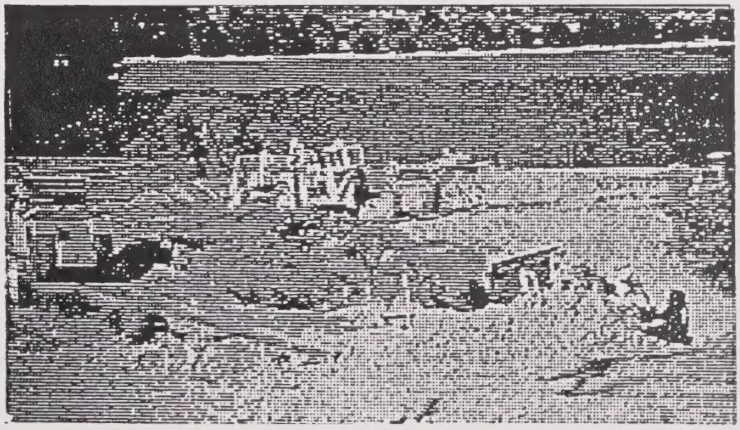
a. Fund the Development Monitoring and Forecasting System (DMFS) and the Master Environmental Assessment (MEA). Utilize them to monitor population growth and its potential effects on existing infrastructure facilities and available natural resources. Determine that adequate public and private facilities, resources and/or services are available to serve proposed developments prior to issuance of any development or use permit.

b. Develop and maintain an accurate up-to-date record system to monitor the extent and distribution of land, both developed and undeveloped, and the rate of land absorption.

c. Establish systematic procedures for refining, updating and maintaining necessary data base maps, texts and statistics.

d. Design measurements that successfully depict the quality of life and establish a quality of life index for the County.

II. Urban/Rural Service Boundaries



One of the responsibilities of any local government is to encourage the provision of public services and facilities for its residents. Public services are defined as governmental services including sheriff and fire protection, healthcare, recreation and education programs which the County provides, or the provision of

which the County encourages or gives support. Public facilities are defined as the basic physical structures and infrastructure including roads, water distribution and storage systems, sewage collection and treatment facilities, and flood control and storm drain systems.

As development occurs, the demand for certain types of public services often increases. Public funds available to provide such services can be anticipated to be less than adequate to meet all public service needs. The location of new development in relation to existing facilities and service centers bears a direct relationship to the cost of providing services to that new development. The economics of land use often result in leap-frogging and sprawl; since land costs are lower in the urban-fringe areas, development often occurs in these areas instead of adjacent to existing developed areas. Such leapfrog growth requires extension of services across intervening, undeveloped land, resulting in higher costs for service extensions than would be required for concentric growth.

A basic problem in providing services is defining appropriate boundaries between urban and nonurban areas, and proper levels of services for each. For planning purposes, the County is divided into three (3) broad development areas - urban, rurban and rural based on the following factors:

- Existing and anticipated level of development and level of build-out at planned densities
- Current lot pattern/sizes
- Proximity to water and sewer district service boundaries and capability for providing future service to designated areas
- Availability of public services and the carrying capacity of existing infrastructure facilities
- Proposed expansion/extension of existing, and development of new facilities
- Hazards
- Carrying capacity of existing natural resources
- The extent and potential for damage to significant environmental resources
- Spheres of influence/city boundaries

Urban Areas (UA)

Urban areas are areas that are committed or planned for higher density/intensity uses. A full range of public facilities and services (including water, sewer, roads, flood control/drainage, police and fire services etc.) shall be focused on these areas. Urban areas include:

1. Areas surrounded by incorporated cities.

2. Areas adjacent to incorporated cities, generally divided into parcels 5,000 square feet up to one (1) acre, and served by a water purveyor.

3. Areas within the sphere of influence of incorporated cities.

Urban areas should be suitable for urban land uses. The following Land Use Districts can be located within urban areas:

- Single Residential RS
- Multiple Residential RM
- Office Commercial CO
- Neighborhood Commercial CN
- General Commercial CG
- Service Commercial CS
- Community Industrial IC
- Regional Industrial IR

Rurban Areas (RB)

Rurban Areas are designed to accommodate residential development opportunities for those who desire exurban, low density, or country living environment and are willing to assume the costs of providing many of their own services and amenities. The low intensities accommodated in this district generally permit on-site septic systems and wells, thereby reducing public expenditures. These areas are not expected to be converted to higher intensities in the future; they are expected to be built as currently designated.

Rurban areas are areas that meet one or more of the following criteria:

1. Areas adjacent to incorporated cities, generally divided into parcels of one (1) acre up to five (5) acres.

2. Areas in remote locations with limited access already subdivided into parcels that are smaller than five (5) acres.

3. Areas where on-site disposal systems may be permitted.

The following Land Use Districts can be located in Rurban Areas:

- Rural Living RL
- Single Residential RS (1 acre min. parcel size)
- Neighborhood Commercial CN
- Service Commercial CS
- Community Industrial IC
- Highway Commercial CH

Rural Areas (RA)

Rural areas are comprised of agricultural and unimproved lands and low-intensity residential development. These areas are not required for urban development at the present time and, according to current population projections, will not be required (for urban development) in the next twenty years. There is generally a long-term commitment to maintain a rural lifestyle in these areas. Although certain basic public services and facilities are available to these areas, few, if any urban services are either available, planned, or encouraged.

Rural areas are defined as lands which are generally suitable for lower-density/intensity land uses because they meet one or more of the following criteria:

1. Used for agriculture, general open space, or as a watershed for a public water supply.

2. Isolated subdivided areas and commercial centers which are not adjacent to incorporated cities.

3. Divided into parcels of 5 acres or larger, next to an urban incorporated area.

4. Subdivided areas that use onsite wastewater management systems which are adjacent to, but not surrounded by incorporated areas.

The following Land Use Districts can be located in Rural Areas:

- Resource Conservation RC
- Agriculture AG
- Rural Living RL
- Neighborhood Commercial CN
- Service Commercial CS
- Rural Commercial CR
- Highway Commercial CH

The Planned Development (PD), Institutional (IN), and Floodway (FW) Districts can be located in any of the three areas.

Goals

D-53 *Establish new, and revise existing development standards for urban, rurban and rural areas, regarding the needed infrastructure facilities and the types and levels of services capable of enhancing the quality of life of County residents and preserving their neighborhood and community identities.*

D-54 *Direct future growth to areas where infrastructure facilities and public services exist or can easily be provided or acquired and where other desired attributes of the land, such as open space, watershed areas, and scenic resources, will not be adversely impacted.*

D-55 *Review and modify land development procedures to require that all necessary infrastructure improvement be constructed by new development as it occurs or appropriate fees be provided.*

D-56 *Provide new services only within defined urban service boundaries.*

D-57 *Program the timing and location of public service extensions to support projected levels of development in a manner commensurate with economic capacity, preservation of desired open space and trail alignments, and minimum environmental impacts.*

Policies/Actions

LU-7 Because long-term, area-wide commitments to levels of service and development standards are necessary to efficient capital improvement programming and will promote the orderly provision of the needed and desired improvements to maintain the quality of life, the following policies addressing service level boundaries and development standards shall be implemented:

a. Designate those lands within Improvement Levels (ILs) 1 and 2 as "urban", those lands within IL 3 as "rurban" and those lands within ILs 4 and 5 as "rural" in order to indicate where the most intensive development, and less intensive development will be permitted.

b. Discourage leap-frog development and urban sprawl by restricting the extension or creation of new urban services or special districts to areas designated ILs 1, 2 and 3.

c. Utilize the Urban/Rural Improvement Level (IL) lines to coordinate, among the various jurisdictions and special districts, the development of public services and facilities, and to formulate the County's Capital Improvements Program.

d. Utilize the Improvement Levels (ILs) as designated on the Infrastructure Overlay Maps to control/condition the timing and intensity of future development and ensure that future development are contingent on the provision of infrastructure facilities and public services that are specified by the applicable Improvement Level (IL).

e. Continually update the Infrastructure Overlay Map to reflect newly planned or developed infrastructure facilities.

f. Designate land uses on the Official Land Use Districts Map in such a way that the least intensive uses are permitted in areas with minimal infrastructure facilities and public services, while the more intensive use types are permitted in areas where urban level infrastructure facilities and public services currently exist or are planned.

g. Areas designated for low-intensity development shall not be converted to accommodate higher intensity development until the infrastructure facilities and public

services required of higher intensity development are provided or acquired by the applicant, and only if the project conforms with the overall growth management and open space policies of the County.

h. Proposed Land Use Map amendments must be consistent with Improvement Levels as described herein and proposed amendments to expand or create higher intensity Improvement Levels (ILs) must include findings that the changes are consistent with the following:

   i) General Plan Land Use District locational criteria
   ii) Capital Improvement Programs (CIPs)
   iii) Sphere of Influence Policies

   If a higher intensity Improvement Level (IL) is created as a result of the amendment, cumulative environmental impacts must be addressed during an environmental review procedure especially in regards to regional concerns such as water quality, air quality, etc. and appropriate findings must be adopted.

i. Fund the next phase of the effort to produce a working infrastructure assessment model (the Infrastructure Assessment and Reporting System (IARS)) that will allow periodic analysis of the supply and demand for backbone infrastructure items such as road, water, sewer and drainage improvements based upon land use and projected growth and service.

j. Adopt an annual five-year Capital Improvement Program (CIP) consistent with this General Plan, listing the necessary improvements to the County's public services and facilities in collaboration with key service providers and the County Administrative Office. This Plan shall address the projected demand for public services Countywide and within each Planning Area, and shall identify the long-term financial trends and sources of funding for the major public service providers.

k. Require that new development pay a proportional fair share of the costs to provide infrastructure facilities required to service such development. If an applicant is required to pay more than a proportional share, reimbursement agreements may be used.

l. Require that, when fees are required in lieu of some or all improvements, such fees shall be paid no later than the issuance of building permits. Payments may be phased, provided such phasing arrangements are approved in conjunction with project approval.

m. Require 100% of the total required fees to be paid by the time 75% of the building permits have been issued in any Large Scale Housing application, Planned Residential Development, Planned Development, or Tract of 50 units or more.

n. Make available or establish financial mechanisms (such as assessment and community facility districts) to most efficiently spread the cost of necessary

infrastructure improvements as determined by the local public agency over all development benefiting from such improvements. Provide legal written notice to all people affected by such financial mechanism cost.

LU-8 Because the County wants to ensure that future development does not become a fiscal liability for County residents, and ensure that there is a balance between the infrastructure facilities/services demanded by a development and the amount of resources available or required to provide the infrastructure facilities/ services, the following policies/actions shall be implemented:

a. Require Fiscal Impact Analyses (FIA) of required services and infrastructure including both short- and long-term financing mechanisms and/or strategies for all new commercial, industrial, on institutional developments of six (6) acres or larger, or residential developments of fifty (50) units or more.

b. Encourage that a number of project proponents cooperate to prepare a common FIA when feasible. The Fiscal Impact Analyses shall include both local and regional impacts and the appropriate mitigation measures to correct any identified deficiencies. All projects less than 50 residential units or six acres of commercial, industrial or institutional uses will be required to complete a questionnaire which can be used by staff to determine the need for additional analyses especially in regards to the cumulative impacts of such projects.

c. Utilize Fiscal Impact Analyses (FIA) to determine the County's ability to provide adequate services and facilities through the imposition of conditions of approval, fees, special taxes, financing mechanisms, etc., on new development.

d. Utilize the Infrastructure Assessment and Reporting System to determine the current levels of service and proposed service needs for each Planning Area or region in the County.

e. Establish Financial Implementation Plans to acquire the services that are needed in each Planning area or region in the County.

III. Intergovernmental Coordination

There are over 250 units of Federal, State and local governments operating within the jurisdictional limits of the County. Coordination between all these agencies and all County departments is essential for the development and implementation of the General Plan. Such coordination is particularly crucial to:

- Resolve potential land use conflicts between the County and the Federal and State agencies, such as the Department of Defense (DOD) and the Department of the Interior (DOI) which have jurisdictional control over the majority of land in the County.

- The joint planning efforts of the County and the incorporated cities, regarding land development policies in the Sphere of Influence (SOI) areas.

Other Jurisdictional Land

All lands controlled by a jurisdiction other than the County are coded to indicate the agencies that control them on the Official Land Use Districts map. This includes land controlled by the incorporated cities, Federal agencies such as the Bureau of Land Management (BLM), the Department of Defense (DOD), and other State and public agencies.

Federal land ownership is expected to change relatively little during the Plan period, although occasional land exchanges are anticipated especially between private parties and the Bureau of Land Management (BLM) or the National Forest. On the other hand, incorporated land area is expected to increase due to annexations and incorporations, thereby reducing the amount of land that is subject to the County's policies and regulations.

Land Use Planning in the Sphere of Influence (SOI) Areas

The incorporated cities are often critical of the land use decisions made by the County in the sphere of influence areas. The cities' major concerns are that:

1. Some of the land uses proposed by the County for the SOI areas are not compatible with, and are not logical extensions of the adjacent land uses within the cities' boundaries.

2. County development standards are relatively lax, depreciating the quality of the permitted development and adversely impacting the neighborhoods, including adjacent areas within the cities.

3. The review procedures employed by the County do not include urban design and architectural design considerations which are used by many cities.

Section 65300 of the California Government Code places a dual mandate on both cities and counties relating to land use planning within spheres of influence. The land use policies adopted for the SOI areas are designed to encourage annexations or incorporations.

Goals

D-58 *Promote harmonious and mutually beneficial uses of land among the various public agencies and jurisdictions present in San Bernardino County.*

D-59 *Promote closer coordination and cooperation among the County, the incorporated cities, SCAG, SANBAG, the various Special Districts and other local, State and Federal agencies (whose planning decisions and actions affect more than a single jurisdiction) to address regional problems such as traffic congestion, air quality, adequacy and quality of potable water, solid waste management, and preservation of open space.*

D-60 *Encourage cities to annex urban unincorporated areas within designated city spheres of influence and support annexations/incorporations of urban designated lands, except where these lands are desired to be maintained as nonurban open space.*

D-61 *Develop a policy which encourages implementation of compatible standards and facilities and encourage annexation for those lands located within the sphere of influence (SOI) of all cities.*

Policies/Actions

LU-9 Because State law gives cities the ultimate responsibility to manage lands within their adopted spheres of influence, and because cities are usually best able to manage urban growth through the provision of services, the County has a responsibility to coordinate its land use policies with the cities. The County needs, therefore, to pursue plans, policies and programs that support city standards and policies wherever such standards have been agreed to and jointly adopted.

Until joint plans have been adopted, the County will exercise its authority to refer development applications to affected cities and may require development to conform to city development policies and standards whenever appropriate.

In addition, the policies and standards that encourage annexation and the use of city standards within city spheres of influence will be considered:

a. Adopt joint regulations/plans whenever possible through the adoption of overlay districts, specific plans, zoning studies, infrastructure support plans, and other appropriate mechanisms.

b. Require Conditional Use Permits within city spheres of influence for all development other than single family residences or expansions of existing uses that are less than 25%.

c. Require service connections for projects that are less than one mile away from sewer availability. Exceptions (for package wastewater treatment plants, individual on-site and multiple owner septic systems, holding tanks, and experimental systems) may be approved subject to review and approval by the County DEHS, the appropriate regional water quality control board, and the wastewater agency.

d. Support city annexations/incorporations of urban designated lands.

e. Recognize and implement growth control limits adopted by cities as they apply to spheres.

f. Initiate Joint Power Agreements (JPAs) with cities to allow for city or County development fees to be collected and distributed accordingly.

g. Designate Improvement Levels and Land Use Map changes to more closely reflect city prepared general plans, prezoning and infrastructure and development standards for sphere areas.

h. Designate Sphere of Influence areas on the Land Use Maps as Special Planning Areas and utilize special city standards in these areas to the extent they are incorporated in plans adopted as described in subpolicy (a), above.

LU-10 Because the County wants to minimize land use conflicts between the County and other agencies that have jurisdictional control over lands located within the County, and because the County wants to cooperate and coordinate with adjacent municipalities and other regional agencies to address regional problems such as traffic congestion, air pollution, water quality, waste management and job/housing imbalance, the following policies/actions shall be implemented:

a. Review the master plans and/or general plans of all these agencies and incorporate any and all policies that are applicable and appropriate into the County General Plan.

b. Solicit comments from the military and other Federal and State agencies that control land in the County on projects which are proposed within their designated peripheral areas.

c. Develop a procedure to assure that the County, the incorporated cities, and the various special districts refer major planning and land use proposals to all affected jurisdictions for review, comment and recommendation.

d. Establish a "Review Area" around each state, military, or other Federal jurisdiction, and review development proposals or proposed General Plan amendments and revisions within the established Review Area with the appropriate agency.

e. Work with the Bureau of Land Management (BLM) and other public agencies to eliminate conflicts between public and private lands by reducing the checkerboard pattern of public/private ownership.

f. Work with BLM and the Forest Service to ensure that large blocks of public land are not further subdivided or classified as Governmental Small Tracts, and to ensure that disposal of public lands shall be based on definite proposals for development consistent with the County General Plan.

g. Work with BLM, the Forest Service and other public agencies to facilitate public/private land exchange to eliminate the need to cross public lands to reach privately owned lands. Such lands shall when exchanged, be subject to all the policies and standards of the "Resource Conservation" (RC) District. However, if such land is determined by the Drainage Division of the County Land Management Department or by FEMA to be subject to severe flooding, it shall be subject to the policies and standards of the "Floodway" (FW) District. A General Plan Amend-

ment is required to determine the appropriate land use designation for exchanged lands.

h. Work with BLM and other public agencies in the designation and protection of wilderness and restricted natural areas in the approval and management of recreation events and sites; especially in the East Mojave National Scenic Area (EMNSA).

i. Work with Indian tribes and State and Federal agencies in the development of plans for land within their jurisdiction.

j. Permit development adjacent to prisons and similar detention facilities only when compatible with the security needs of the facility and public safety is assured, and:

   i) Work closely with State and local officials responsible for administering these facilities when considering land use proposals on adjacent lands.
   ii) Discourage high density residential uses on adjacent or nearby parcels.

k. Request that SANBAG act as a forum for discussion of the County's growth management plan and work toward a consensus with all the cities for ultimate adoption.

l. Designate SANBAG as the city/county growth management forum concerning regional issues and continue working toward a consensus with surrounding counties through SCAG and SCAQMD.

m. Continue to work on specific projects to improve traffic flow, such as the Foothill Freeway extension project, the Route 91 Task Force, and the Route 60/71 working group.

iv. Infilling

Infilling can be a means of protecting and enhancing older neighborhoods. It is also a way of maximizing the utilization of existing infrastructure facilities and of saving energy; the assumptions being that urban services are readily available in infill areas and in addition, these areas are in close proximity to places of employment. Infilling is an effective method of preserving land, water and other natural and man-made resources.

Goals

D-62 *Adopt an incentive program to encourage projects which will infill existing urbanized areas.*

Policies/Actions

LU-11 Because urban infilling promotes more efficient use of existing infrastructure and decreases the need to construct extension of services, the following incentive actions to encourage urban infill shall be implemented:

a. Designate urban infill areas on the Infrastructure Overlay Maps as the highest intensity Improvement Levels (i.e., ILs 1 and 2), except where prohibited by other regulations and policies.

b. Recommend Land Use Map changes to reflect higher intensity and compatible uses in urban infill areas, except where prohibited by other regulations and policies.

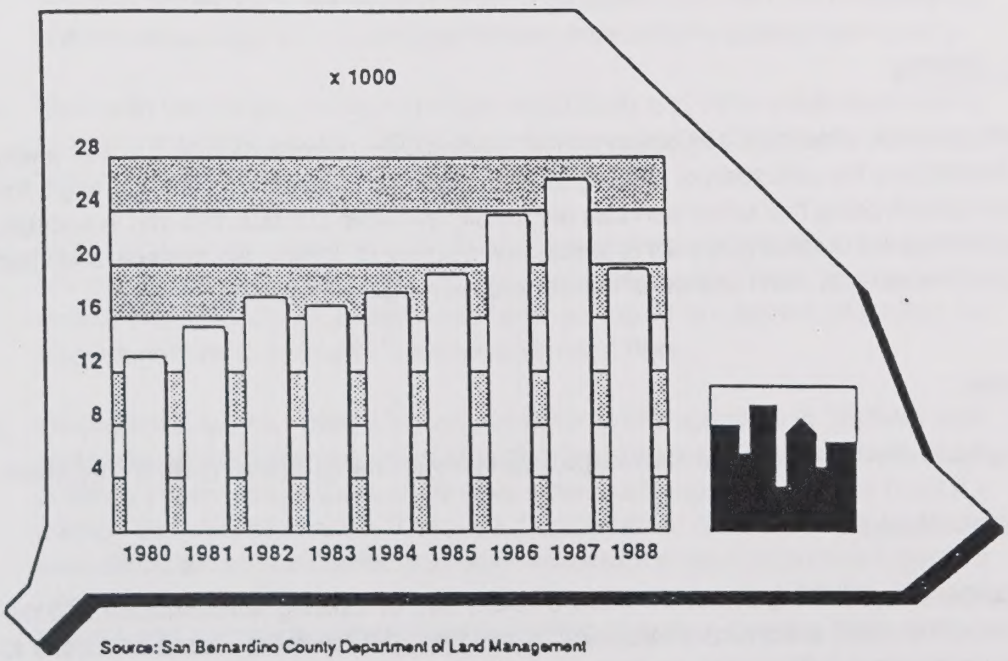
c. Reduce processing times for "urban projects" (commercial, industrial and residential of 4 or more dwelling units per acre) that fall within either Improvement Levels 1 or 2 that will use underutilized infrastructure capacities as determined by the Planning Officer.

d. Direct the Department of Economic and Community Development to provide information to prospective firms, in order to recruit industrial and commercial development to Urban Infill areas (ILs 1 or 2 with urban land use designations of industrial, and commercial), and to promote use of grants for upgrading infrastructure in these areas.

e. Direct all County Departments to prioritize capital improvements and public works to upgrade urban infill areas, including supporting creation of improvement districts, except where prohibited by other regulations and policies.

f. Require that any and all incentive actions be consistent and compatible with any adopted applicable city sphere of influence policies or other regulations and policies.

Number of building permits issued per year in the County from 1980-1989



Source: San Bernardino County Department of Land Management

SECTION III

Regional/Subregional Planning Areas

A. INTRODUCTION

B. VALLEY REGION

C. MOUNTAIN REGION

D. DESERT REGION

A. INTRODUCTION

The County comprises three regions - the Valley, Mountain and Desert, with distinct geographic and physical characteristics. For planning purposes, these three regions are divided into eight (8) subregions: West Valley, East Valley, Mountain, Victor Valley, Barstow, Baker, Morongo Basin and Lower Colorado River. The boundaries of the eight (8) subregions are coterminous with the boundaries of the eight (8) Regional Statistical Areas (RSAs) in the County (see Map III-A). It is proposed that comprehensive plans shall be prepared for each subregion to supplement the General Plan.

Each subregion is divided into community-size planning areas. These community-size planning areas include:

a. Areas within the Spheres of Influence (SOI) of each of the twenty-one (21) incorporated cities/towns in the County.

b. Areas for which Community Plans were previously adopted, or are being prepared/proposed.

c. Areas for which Specific Plans were previously adopted, or are being prepared/proposed.

d. Areas determined to need or require special comprehensive planning studies.

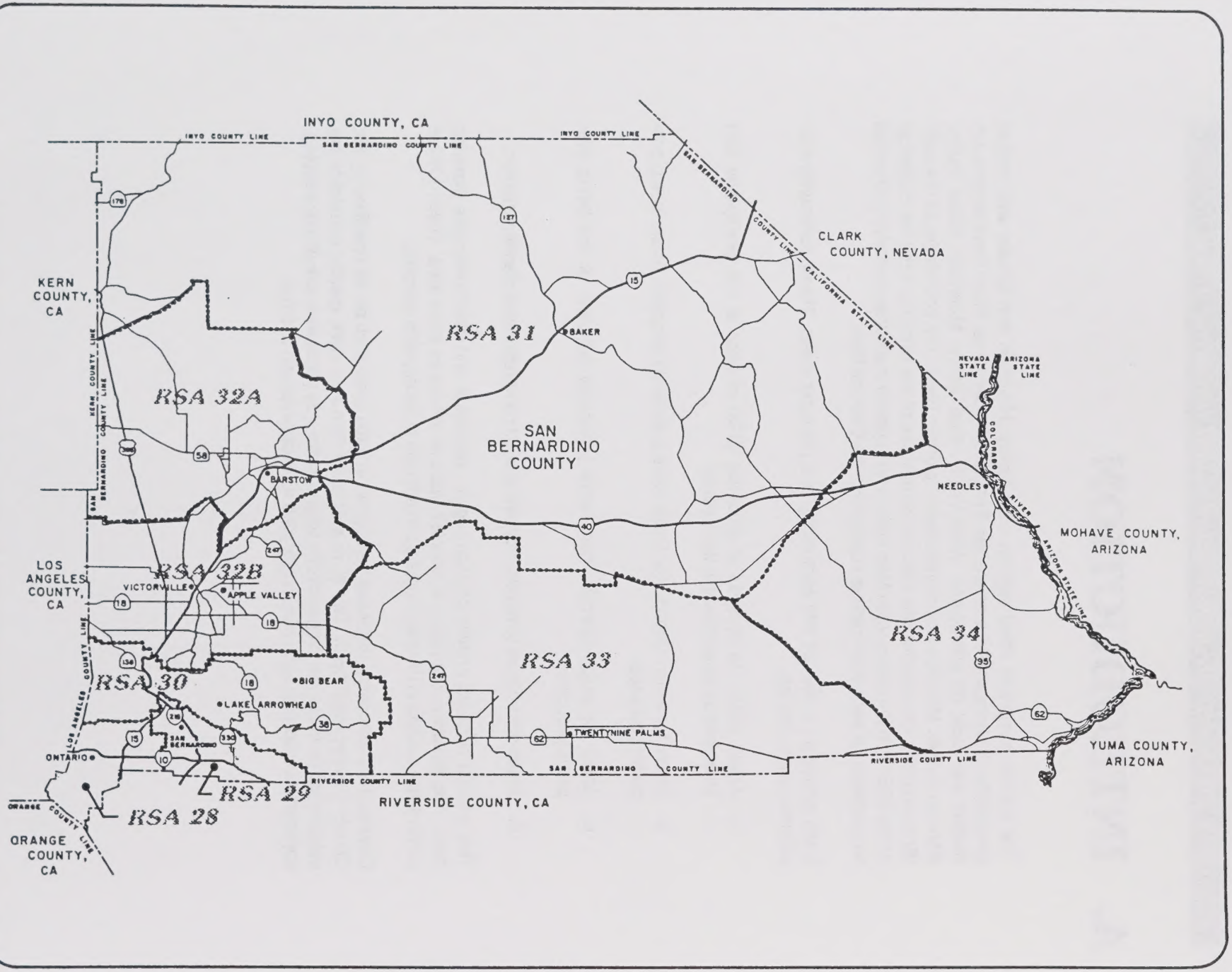
This section contains profiles of each region, subregion and community-size planning area. Also included is a listing of policies that are unique to each area. These unique policies are applied in the planning area in addition to countywide policies.

Development standards that shall be applied in each area shall be as specified by the County Development Code, Title 8, or a Specific Plan text. Until specific standards are established for those planning areas for which community plans were previously adopted, applicable sections of such community plan texts shall remain in effect.

SAN BERNARDINO COUNTY GENERAL PLAN

REGIONAL STATISTICAL AREAS - COUNTYWIDE

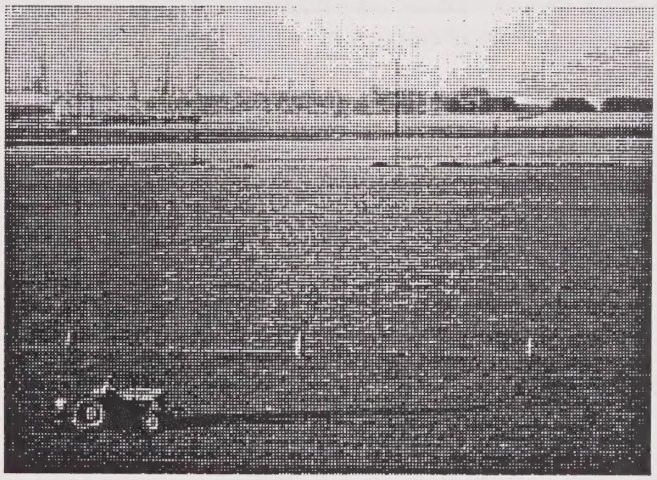
MAP III-A



B. VALLEY REGION

Located about 60 miles east of the Pacific Ocean, the Valley region is considered part of the South Coast Air Quality Basin. It is approximately 50 miles long from west to east, contains about 480 square miles and is bordered on the west by the Chino, Puente, and San Jose Hills, and on the north by the San Gabriel and San Bernardino Mountains. The Valley region is defined as all the area within the County that is south and west of the Forest Service Boundaries. The San Bernardino range trending southeast forms the eastern limit of the Valley, along with the Yucaipa and Crafton Hills. The southern limits of the Valley are marked by alluvial highlands extending south from the San Bernardino and the Jurupa Mountains. Elevations within the valley range from about 500 feet on the Valley floor to 1,700 feet in Live Oak Canyon, and to about 5,400 feet in the Yucaipa Hills.

Although development is rapidly increasing, agriculture still remains active in the Valley; Chino



The Valley is divided into two major subregions: the West Valley (RSA 28) which is largely urbanized, and the East Valley (RSA 29) which is fast becoming urbanized. While the Valley (West and East) contains only two percent (2%) of the County's land area, the region contains approximately eighty percent of the County's population. EPA's mandate that the Valley should meet established air quality standards and the inadequacy of existing infrastructure facilities to support the region's burgeoning population are two of the major constraints to future development in the region.

WEST VALLEY SUBREGIONAL PLANNING AREA (WV) (RSA 28)

The West Valley is the most heavily developed subregion in the County. Most of the land in this region is incorporated. Therefore, most of the future growth in the region is expected to occur in the cities and the areas within the cities' spheres of influence.

There are six incorporated cities in the West Valley. These are Chino, Fontana, Montclair, Ontario, Rancho Cucamonga and Upland. The spheres of influence of each of these cities are considered individual planning areas. Also, Community/Specific Plans have been prepared and adopted for two communities in the West Valley. These are Chino Hills (Specific Plan) and West Valley Foothills (Community Plan). Areas covered by each of these two plans are considered individual planning areas as well. Other areas in the West Valley that are not within any of the eight (8) planning areas mentioned above shall be considered part of the West Valley planning area.

Listed below are prefixes for each of the planning areas in this subregion. These prefixes shall be applied to the applicable areas on the official General Plan maps:

Planning Areas	Prefix	Planning Areas	Prefix
Chino sphere	CC	Chino Hills	CH
Fontana sphere	FT	West Valley Foothills	WF
Montclair sphere	MC	Upland sphere	UP
Ontario sphere	OT	Other Areas in West Valley not within any of the planning areas listed above	WV
Rancho Cucamonga sphere	RC		

Map III-B depicts the boundary of the West Valley subregional planning area.

West Valley Policies/Actions

Natural Resources

Open Space/Recreation/Trails

Because special needs and opportunities exist in the Valley region, the County shall pursue the following actions:

- Develop plan to obtain, develop and maintain hiking trails and pedestrian walkways between communities and neighborhoods in the Valley area.

Man-made Resources

Housing/Demographics

The following methods of housing design and development are favored in the West Valley:

- Single-family dwelling units.
- Mobilehome parks.
- Minimum lot size of less than 7,200 square feet for single family residential development within the Chino Hills Specific Plan area.
- Multiple-family residential apartment projects.

- Large lot and/or clustered residential lots adjacent to Chino Agricultural/ Dairy Preserve.

Continue to identify by census tracts areas targeted for rehabilitations. There areas may include but are not limited to:

- North Chino.
- West and South Fontana.
- South Montclair.
- Los Serranos (Chino Hills).

Bonus densities for the following types of housing units are favored through the Housing Incentive Program in the West Valley areas having adequate infrastructure in place, or provided for, to support higher densities:

- Lower income: single-family detached; single-family attached, modular units, mobilehomes, multiple-family residential apartments.
- Moderate income: single-family detached, single-family attached, multiple-family residential apartments, mobilehomes.
- Senior and/or disabled housing bonus density: single-family attached and multiple-family attached.

Within the West Valley areas, the types of development to be favored are: urban infill, single-family detached specifically adjacent to the Foothill Freeway corridors, clustered development with single-family appearance north of Alta Loma in the West Valley Foothill area, single-family detached on large lots north of Etiwanda and West of San Sevaine Creek.

Maps III-C through III-J depict the boundaries of the individual planning areas in the subregion. Following are profiles of each of these planning areas.

SAN BERNARDINO COUNTY GENERAL PLAN

REGIONAL STATISTICAL AREA 28

MAP III-B

NORTH

SCALE-MILES

0 1 2 3

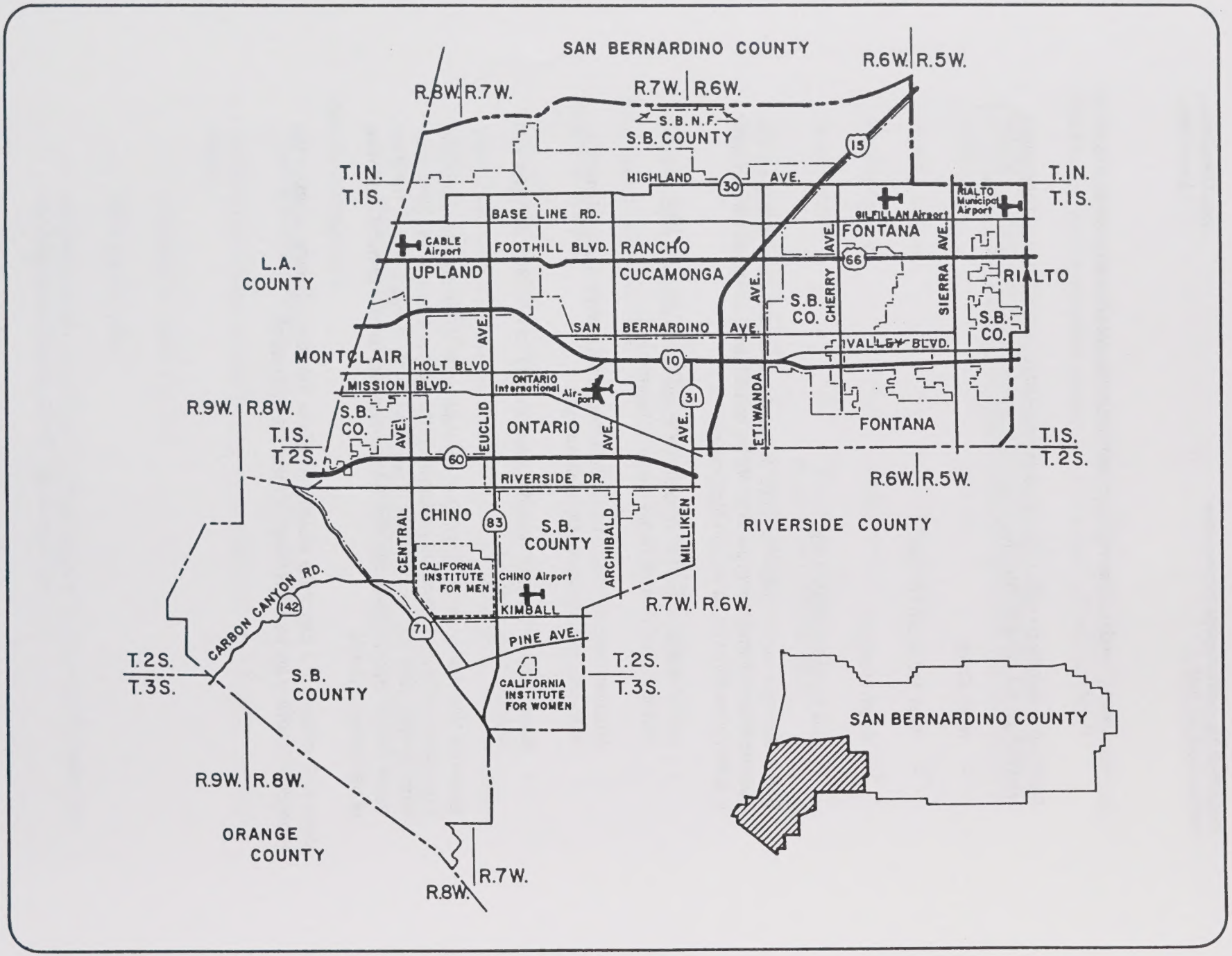


Figure III-1
Summary of Chino (Sphere) Planning Area

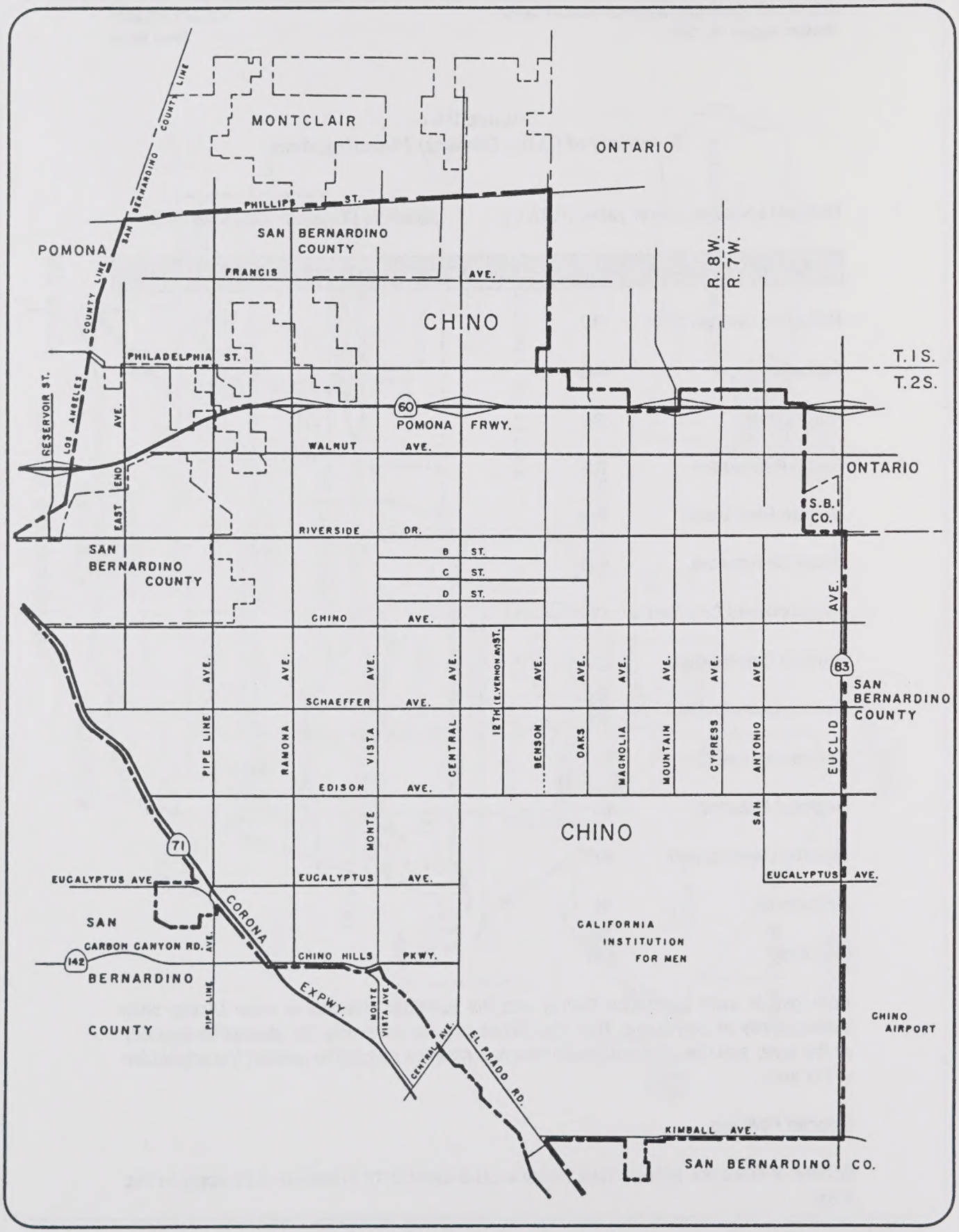
General Location: West Valley (RSA 28) **Specific Location:** See Map III-C

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
CHINO SPHERE OF INFLUENCE

MAP III-C

NORTH

SCALE-MILES

0 1/4 1/2 1

Figure III-2
Summary of Fontana Planning Area

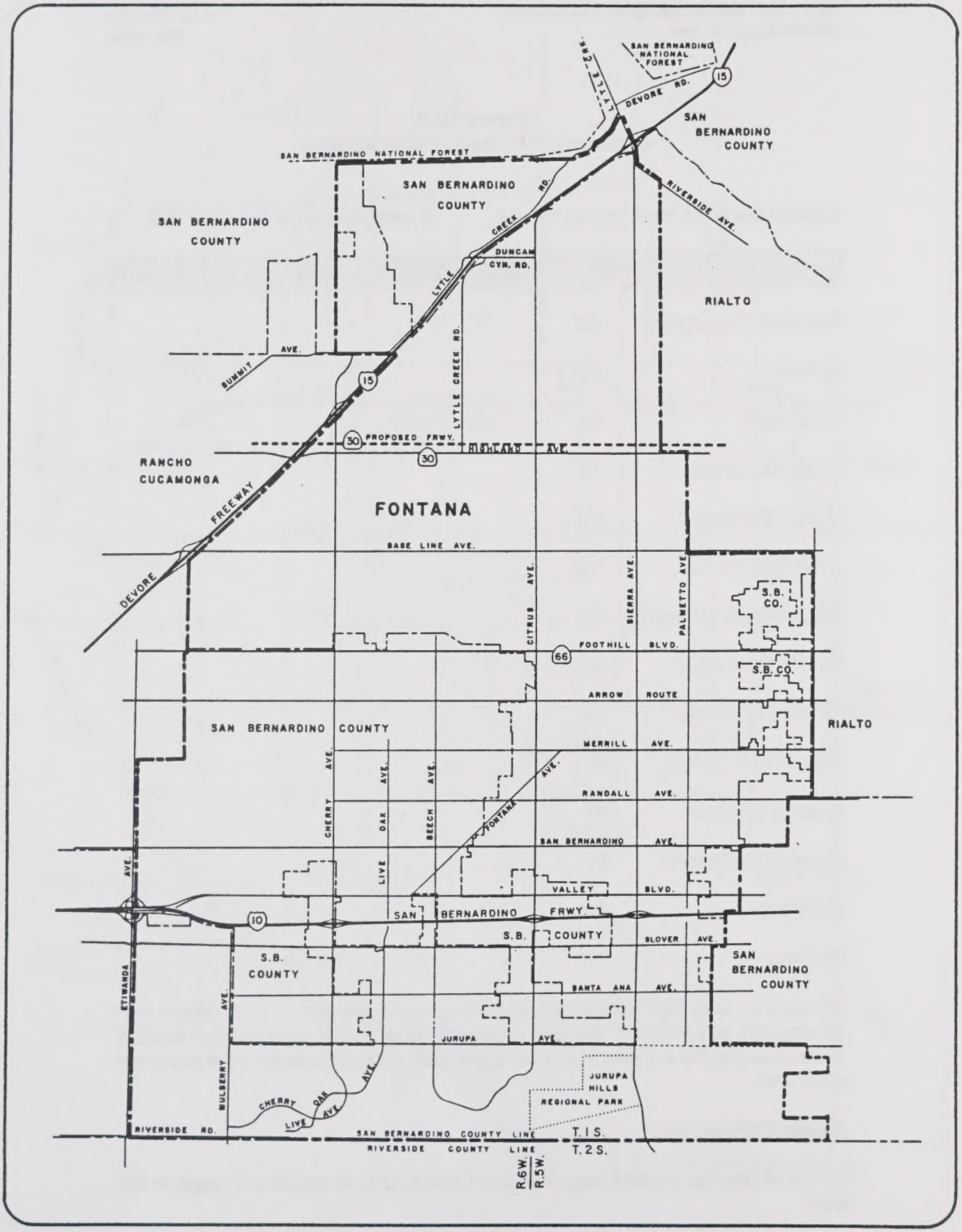
General Location: West Valley (RSA 28) **Specific Location:** See Map III-D

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
FONTANA SPHERE OF INFLUENCE

MAP III D

NORTH

SCALE-MILES

0 1/2 1 1 1/2

Figure III-3
Summary of Montclair Planning Area

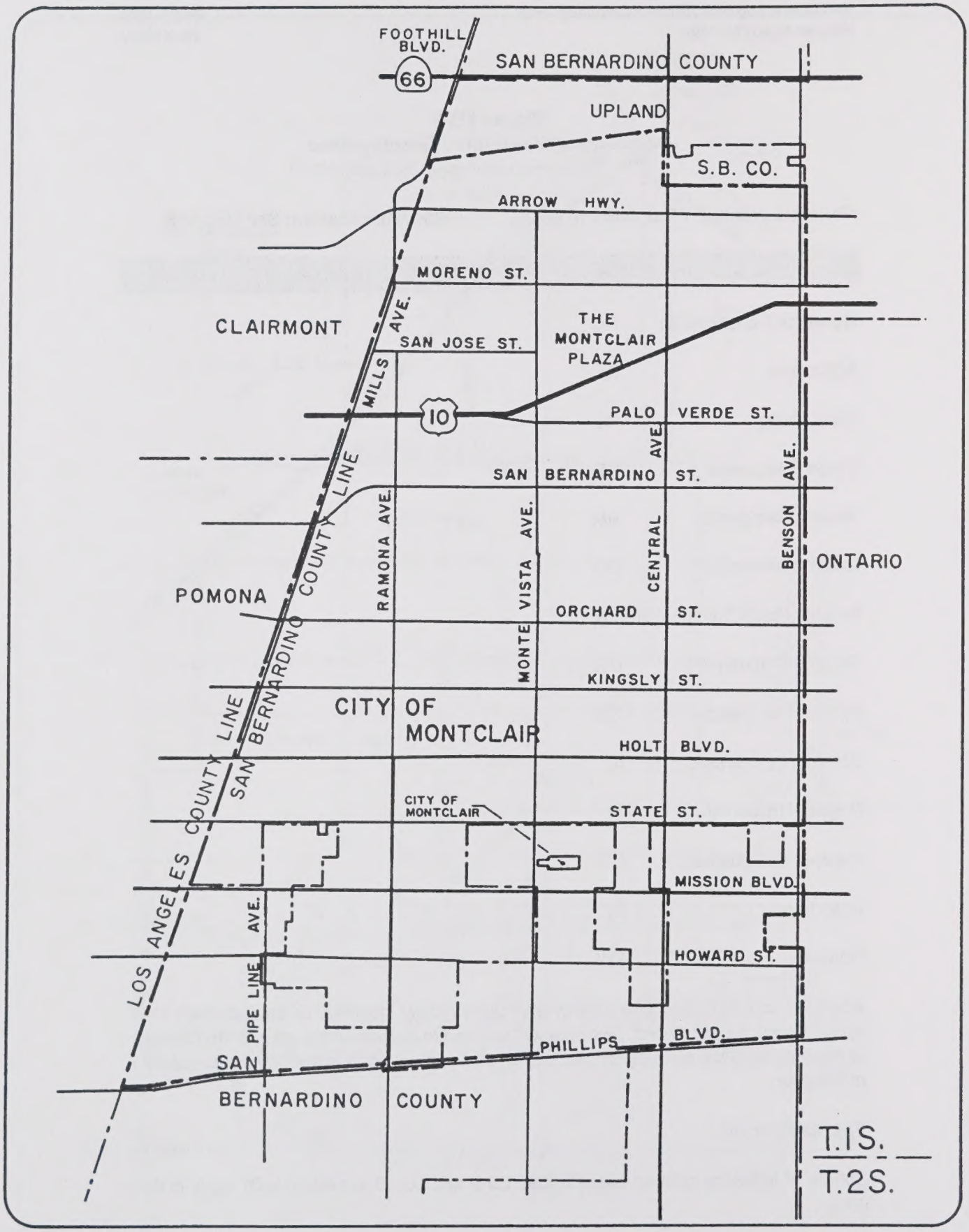
General Location: West Valley (RSA 28) **Specific Location:** See Map III-E

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
MONTCLAIR SPHERE OF INFLUENCE

NORTH
MAP III-E

SCALE-MILES
0 1/4 1/2 3/4

Figure III-4
Summary of Ontario Planning Area

General Location: West Valley (RSA 28) **Specific Location:** See Map III-F

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.

SAN BERNARDINO COUNTY GENERAL PLAN

ONTARIO SPHERE OF INFLUENCE

MAP III-F

NORTH

SCALE-MILES

0 1/4 1/2 1 1/2

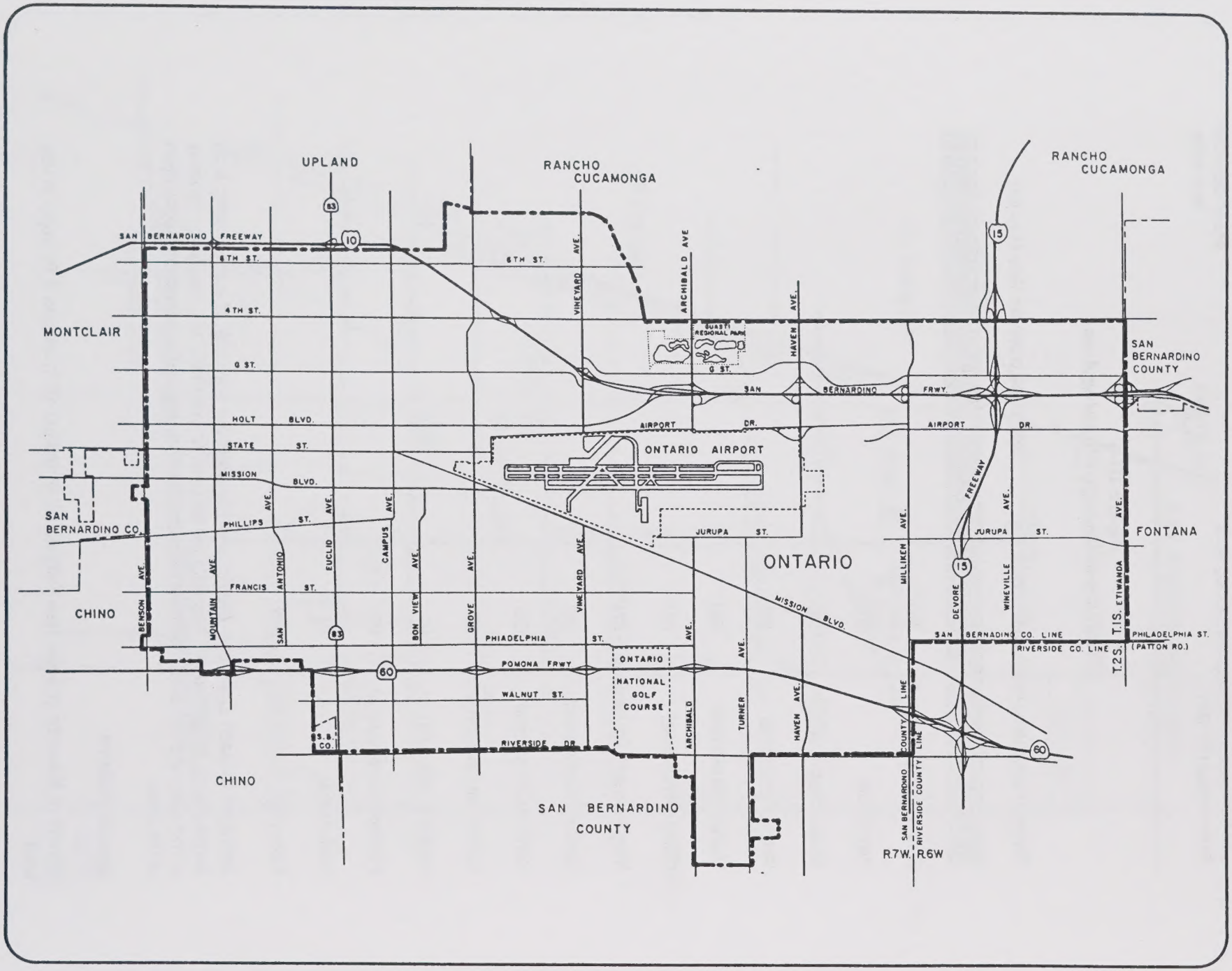


Figure III-5
Summary of Rancho Cucamonga (Sphere) Planning Area

General Location: West Valley (RSA 28) **Specific Location:** See Map III-G

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.

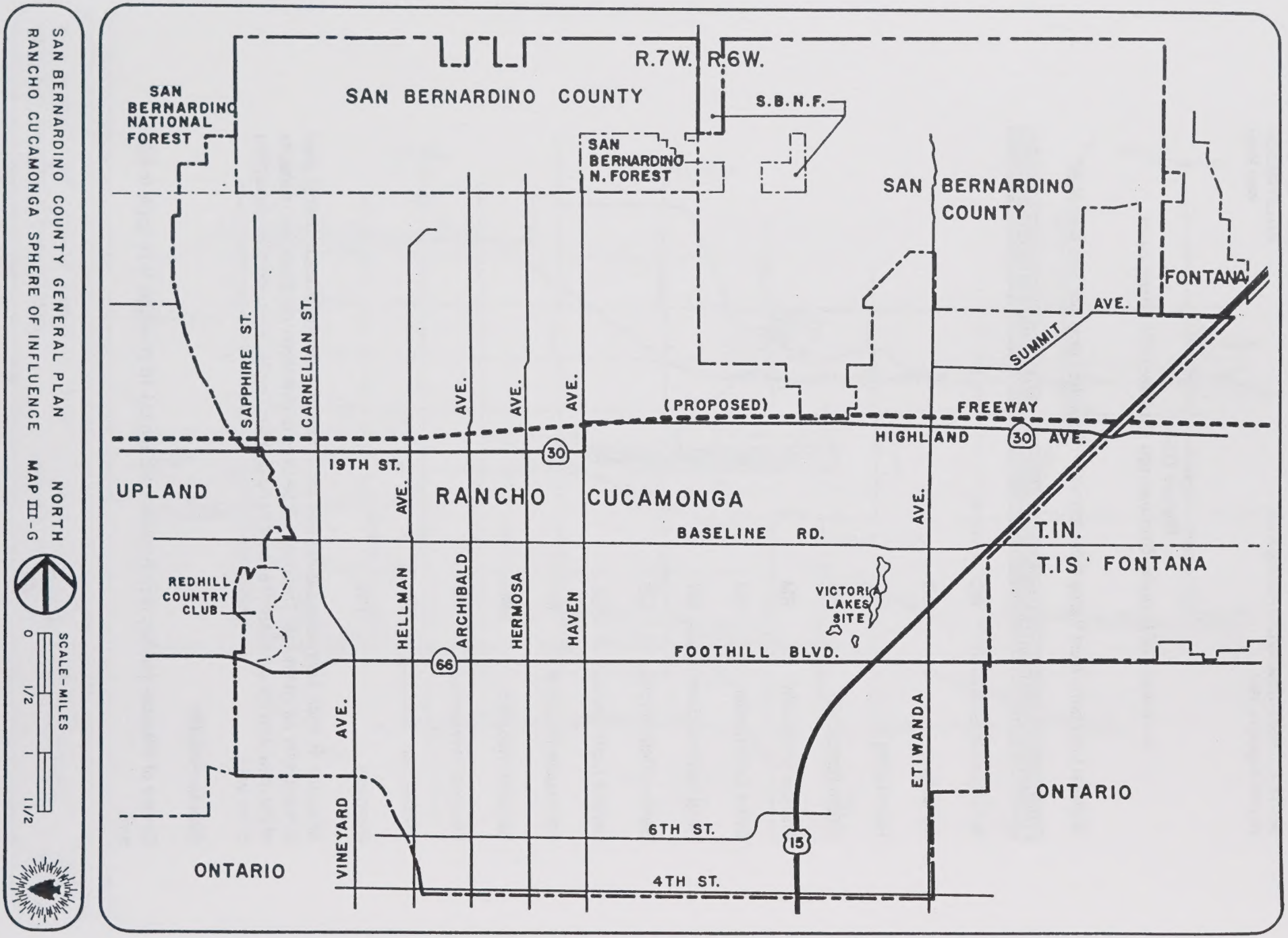

SAN BERNARDINO COUNTY GENERAL PLAN
RANCHO CUCAMONGA SPHERE OF INFLUENCE
MAP III-G
NORTH
SCALE-MILES
0
1/2
1
1 1/2
R.7W. R.6W.
SAN BERNARDINO COUNTY
SAN BERNARDINO NATIONAL FOREST
S.B.N.F.
SAN BERNARDINO N. FOREST
SAN BERNARDINO COUNTY
FONTANA
SUMMIT AVE.
(PROPOSED) FREEWAY
HIGHLAND AVE.
30
SAPPHIRE ST.
CARNELIAN ST.
AVE.
AVE.
AVE.
19TH ST.
UPLAND
RANCHO CUCAMONGA
AVE.
BASELINE RD.
T.IN.
T.IS
FONTANA
REDHILL COUNTRY CLUB
HELLMAN
ARCHIBALD
HERMOSA
HAVEN
VICTORIA LAKES SITE
FOOTHILL BLVD.
66
AVE.
ETIWANDA
ONTARIO
VINEYARD
6TH ST.
15
4TH ST.
ONTARIO

Figure III-6
Summary of Upland (Sphere) Planning Area

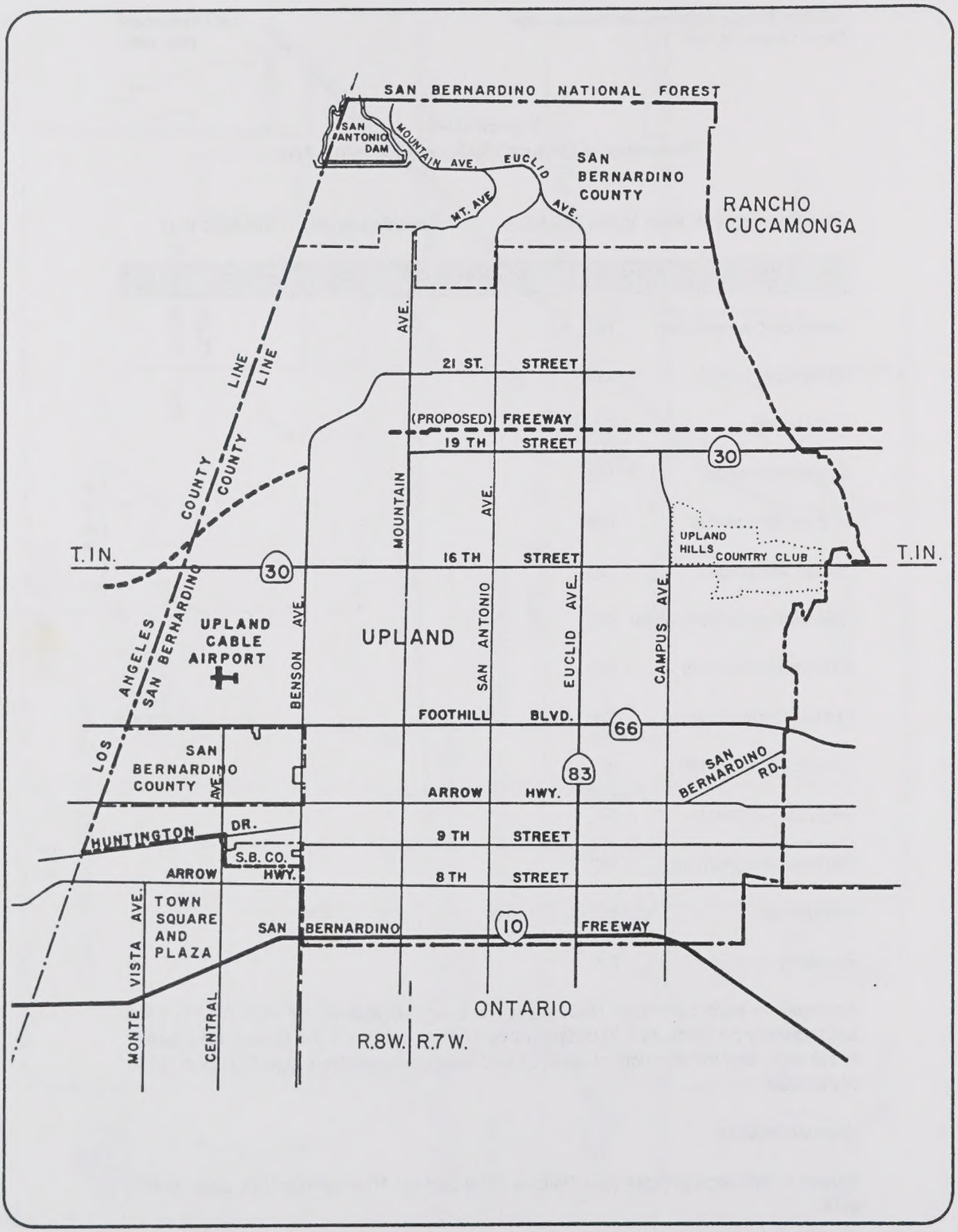
General Location: West Valley (RSA 28) **Specific Location:** See Map III-H

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
UPLAND SPHERE OF INFLUENCE

NORTH
MAP III-H

SCALE-MILES
0 1/2 1 2

Figure III-7
Summary of Chino Hills Planning Area

General Location: West Valley (RSA 28) **Specific Location:** See Map III-I

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL	1,375.2	
Single Residential	RS	1,384.5	
Multiple Residential	RM	260.9	
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG	70.9	
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD	13,854.1	
Institutional	IN	926.2	
Floodway	FW	217.9	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Specific Policies

See Chino Hills Specific Plan text for supplemental policies and standards.

SAN BERNARDINO COUNTY GENERAL PLAN NORTH

CHINO HILLS SPECIFIC PLAN

MAP III-I

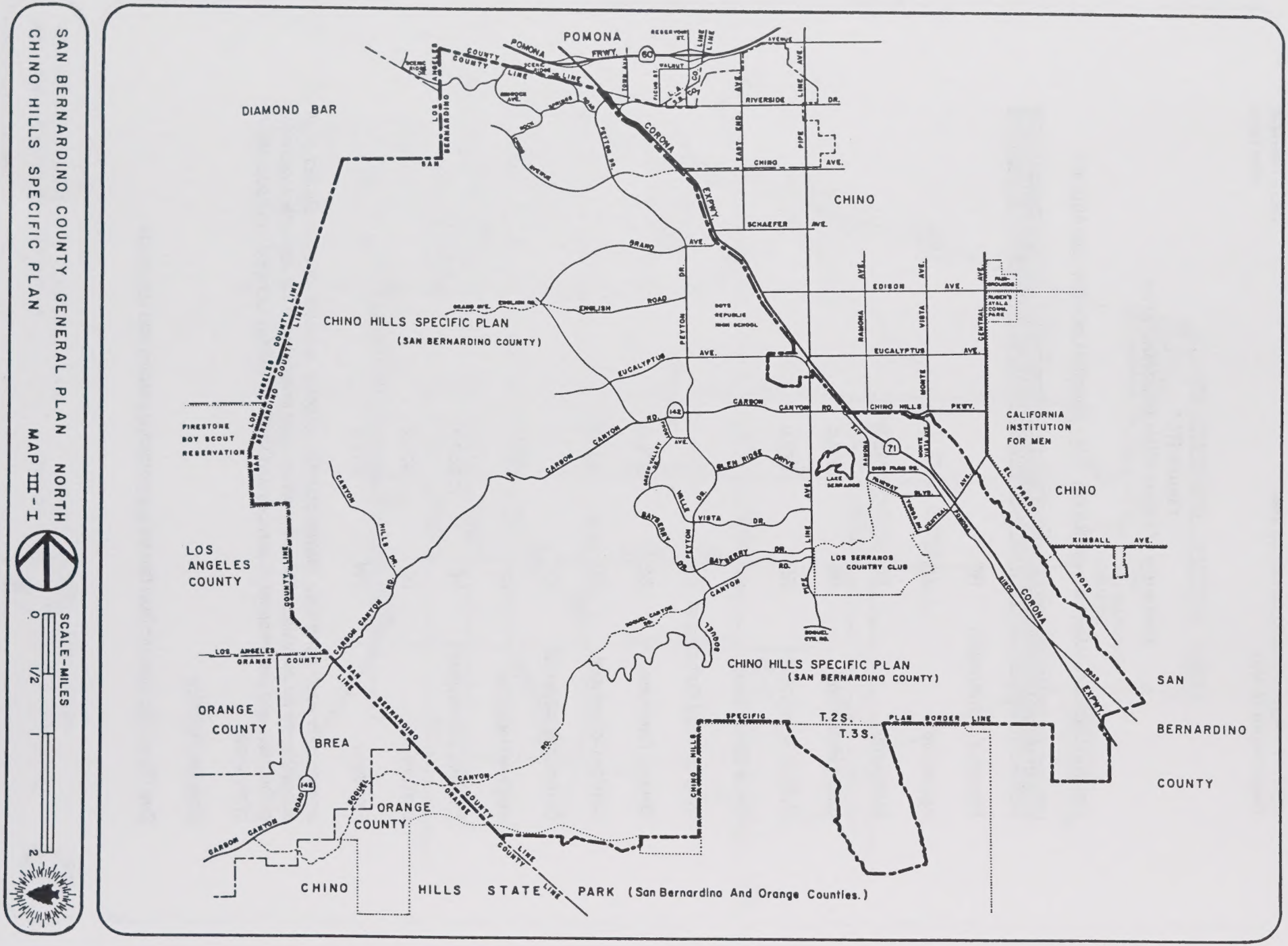
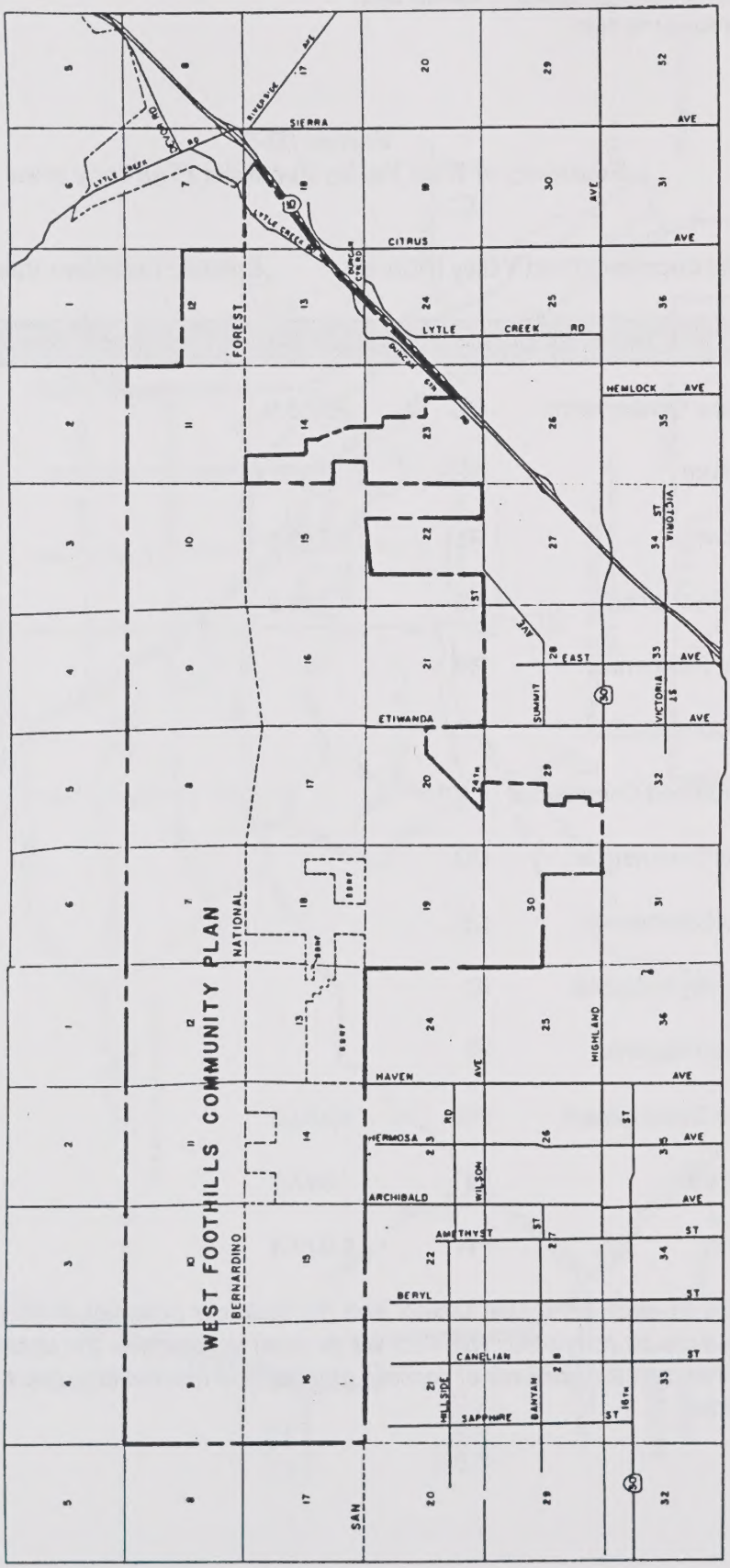


Figure III-8
Summary of West Valley Foothills Planning Area

General Location: West Valley (RSA 28) **Specific Location:** See Map III-J

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	5,833.0	
Agriculture	AG		
Rural Living	RL	702.5	
Single Residential	RS	426.9	
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD	5,383.0	
Institutional	IN	897.2	
Floodway	FW	2,374.3	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
WEST VALLEY FOOTHILLS SPECIFIC PLAN

NORTH
MAP III-J

SCALE-MILES
0 1/2 1 1/2 2 1/2

West Valley Foothills Policies/Actions

Natural Hazards

Geologic

- All proposals for high-occupancy or critical structures, including schools, fire and police facilities, water tanks, reservoirs, etc., regardless of location shall include investigations of seismic conditions on the site and shall not be located within 150 feet of a fault found to be potentially active unless otherwise recommended by a registered geologist.
- Encourage the use of the restricted portions of the fault zone for recreation and common open space purposes.
- Utility lines and streets should not be placed within the fault setback zone except for zone crossing which can be made perpendicular to the fault trace or as recommended by the project geologist and approved by the reviewing authority.
- Establish a residential density of up to one dwelling per acre on land north of and crossed by the Cucamonga fault study zone.
- Special geotechnical studies shall be required for all projects proposed within the foothills and areas underlain by former or existing marshes to determine the likelihood of ground failure and landslide and impact on the site plan.
- Apply remedial grading techniques to correct for potential slope instability where on-site disposal of sewage effluent is proposed.

Flood

- Prohibit activities within identified floodways that would interfere with the channel capacity or would substantially increase erosion, siltation or otherwise disturb the watercourse.
- Review individual project design to insure the stability of slopes adjacent to flood control facilities which could be blocked due to slope failures.
- Require that measures be taken to control runoff from construction sites.
- Require prompt revegetation and/or development on newly graded sites to control erosion.
- Control grading operations during the rainy season.
- A soil erosion control plan may be required in conjunction with grading plans.

Fire

- Promote fuel management programs in those areas subject to the threat of wildland fire.
- Encourage landowner participation in the Chaparral Management Program or similar program offered by the State of California.
- Participation in the Chaparral Management Program or similar program shall be required in order to obtain density bonus consideration.
- Mandatory programs of the "Greenbelt Program" that affect the West Valley Foothills Planning Area shall apply.
- Require mandatory development standards related to building setbacks, roofing and siding materials, exposed horizontal surfaces, chimneys, fire sprinkler systems, and use of fire resistive construction materials.
- Require mandatory transportation standards related to construction access, driveways, cul-de-sacs and access into open areas.
- Require landscape plans to indicate fuel modification where appropriate, permanent irrigation and general landscaping.
- Require arrangements for maintenance of open areas and adjacent private properties to reduce fire hazard.
- Require expanded fuel breaks and greenbelts between new development and foothill areas left undeveloped.
- Require procedure to establish and maintain fire buffers along all streets within new residential projects.
- Develop the infrastructure systems needed to effectively handle future fire-fighting requirements in the planning area.
- Develop improved circulation within projects and improved access to outlying areas for efficient movement of firefighting equipment and the safe evacuation of residents.
- Require adequate water line, fire hydrants and flows in accordance with criteria established by the Foothill Fire Protection District, Central Valley Fire Protection District, and County Fire Warden.

Man-made Hazards

Noise

- Establish siting and construction standards to mitigate noise hazards from major traffic corridors.
- Require the submittal of an acoustical analysis on all new residential projects that will be adversely impacted by existing or expected future noise generated by major transportation corridors.
- Establish similar site planning standards of adjoining communities to reduce noise impacts.
- Reduce interior residential noise levels from outside sources to acceptable levels.
- Locate noise-sensitive land use away from high noise areas.

Natural Resources

Open Space/Recreation/Scenic

- Utilize native and/or drought-tolerant trees, shrubs and ground covers having fire retardant qualities.
- Require a soils erosion control plan for development plans and grading permits within the Foothill portion.
- Encourage project designs that provide visual link with the surrounding environment by incorporating creeks and areas adjacent to channels within the open space of projects and by landscaping to reflect the natural riparian character of the canyons.
- The network of undevelopable open space which currently characterizes the planning area is a valuable resource which should be incorporated into the community's identity.
- Maintain open space where flood, fire, geologic, seismic or noise conditions may endanger public health and safety and on utility corridors and transportation rights-of-way.
- Establish a residential density on land under development restrictive utility easement which can be transferred through the Planned Residential Development/Planned Unit Development applications when the easement portion is contiguous and provide a functional linkage with the improved open space program of the project:

- Up to one dwelling per forty acres in the foothills.

- Up to one dwelling per ten acres on land in the foothills with at least ten acres of thirty percent or less slope and on land south of the foothills.

- Encourage the exchange of publicly owned land within the planning area for private land better suited for watershed protection and open space value.

- Utilize open space and tree landscaping to define neighborhoods and district boundaries and to delineate edges between the natural and built environment.

- Take steps to encourage the retention of private property in open space.

- Encourage clustering of development to retain open space through a bonus incentive system under the Planned Development or similar application process.

- Encourage recreational opportunities within individual residential projects.

- Establish equestrian trail standards that are similar to adjoining communities and can be implemented once an approved maintenance program is established.

- Identify areas where biking, hiking and equestrian systems are desirable.

Because special issues and opportunities are present in the Valley region of the County, the following policies shall apply:

- Because open space features in the Valley have special value due to their limited extent and their proximity to many County residents, the County shall seek to preserve the biological resources in the Valley region to the greatest extent feasible.

- The natural vegetation and wildlife within all portions of the Valley area should be enhanced and preserved.

- Rare and endangered animals and plants requiring limited or specialized habitats shall be protected.

Man-made Resources

Wastewater Systems

- Permit the reuse of reclaimed wastewater from on-site package sewage treatment developed within the planning area when waste discharge requirements and State Health Department Standards for reclaimed wastewater can be met.

- Permit on-site septic systems when public sewer service is not available, soil conditions are suitable, and water quality and public health considerations are acceptable.

- Encourage the establishment of the "on-site waste management zone" for the planning area.

Transportation/Circulation

- Deemphasize use of the private automobile by encouraging alternative modes of transportation, where appropriate.

- Locate neighborhood commercial facilities on sites that are centralized and convenient for the user.

- Design a circulation system to accommodate local traffic that minimizes alterations to the natural terrain and is subject to minimal natural hazards.

- Locate the circulation system out of seismic setback zones and perpendicular to faults when required to cross.

- Establish a hillside paved road standard for foothill areas that will minimize the impact on the natural environment.

- Establish a road improvement plan for Section 14 north of Alta Loma prior to granting final or parcel map approval.

- Establish an east to west collector between Haven Avenue and Interstate 15 in order to connect the northern portion of Etiwanda and Alta Loma, provide primary and secondary access to properties at the base of the Foothills and improve access for wildland fire protection.

- Require a minimum acceptable level of traffic operations at "level of service D" during peak hours.

- Restrict street access where it reduces the design capacity below a "level of service D."

- Design local and collector streets to discourage through traffic within residential areas.

- Adequate off-street guest parking (one half space per unit) shall be provided for multiple-family residential projects in a location that is convenient for the user.

- Off-street parking spaces provided for multiple family units shall be located adjacent or close to the units for which it is provided.

- Support the development of the Route 30 corridor.

- Protect the Route 30 right-of-way by not permitting development within the planned corridor.

- Develop Highland Avenue to Divided Major Standards if Route 30 is not constructed as a freeway.

- Require bus turn-outs and shelters in commercial developments and public use areas.

- Support the development of secure and easily accessible park-and-ride facilities at transit nodes on existing public property.

- Work with regional transportation planning agencies and local employers in support of transportation measures such as improved bus service, express bus service, employer supported transit passes, preferential pool parking, vanpooling programs, ridesharing programs for employees, advertising and promotion of programs and periodic surveys of user acceptance and demand.

- Establish convenient, aesthetically pleasing pedestrian and bicycle paths, as appropriate.

- Exclude the West Valley Foothills Planning Area from the "Density Bonus Allocation" provisions of Incentive #1, County of San Bernardino Housing Incentive Program (HIP) and limit the maximum affordable housing density bonus for residential projects within the West Valley Foothills Community Plan to 25 percent (25%).

Land Use/Growth Management

- In Residential districts, planned development shall be required for all parcels less than 25 acres except for owner/builder single-family homes and accessory uses.

- Adopt and implement the slope development guidelines of adjoining communities.

- Limit residential development on slopes greater than 30% to a density of two (2) dwelling units per acre or less.

- Adopt and implement "Transfer of Development Rights" (TDR) ordinance and allow 100% density transfer from the developable portion of a site provided there are adequate infrastructure facilities and services available to the receiving site.

- Limit commercial lands to neighborhood commercial and convenience centers for local daily requirements and highway commercial centers for freeway traffic requirements.

- Limit industrial use to mineral extraction within Flood Control basins and other areas having significant mineral deposits.

- Localize neighborhood commercial activities within the larger neighborhoods on slopes less than ten (10%) percent.

- Identify a common theme for each neighborhood which could be incorporated within project designs.

- Extend a maximum residential density of up to four dwellings per acre on developable land adjacent to the Route 30 corridor.

- Extend a residential density of up to two dwellings per acre on developable land adjacent to the north side of the Etiwanda Specific Plan area, west of San Sevaine Creek.

- Establish a residential density of up to three dwellings per acre adjacent to the west side of the Etiwanda Specific Plan area.

- Establish a residential density of up to three dwellings per acre adjacent to Interstate 15, south of the Cucamonga fault study zone.

- To be eligible for density bonus consideration, planned developments north of the Alta Loma area shall have a single-family appearance.

- Discourage residential development on land with slopes greater than 30 percent, ridge saddles, canyon mouth and areas remote from existing access.

- Allow up to a 100 percent transfer of residential density from these areas depending on the holding capacity of the area to be developed.

- Retaining these areas in open space will be necessary in order to obtain density bonus consideration.

- Apply strict adherence to all hillside and fire safety development standards.

- Require a slope analysis for all residential projects located within the foothills.

- Require a preliminary grading plan for all residential projects including minor subdivision, that are located within the foothills.

- Require the Planned Development or similar application for all development within the foothills except for the following:

- Properties having good access and existing parcel size less than 25 acres.

- Areas where the topography warrants a standard subdivision design and that new parcels created can accommodate the number of dwelling units permitted by the General Plan Map in a manner in keeping with the provision of this Division.

- Construction of a one-family dwelling and accessory use.

- Establish the following grading requirements for areas having a slope of fifteen percent or greater:

  - Minimize grading for roads, home foundation, pools and drainage facilities.

  - Utilize contour grading techniques in order to compliment and blend into the existing natural terrain.

  - Conceal graded slopes by landscaping and structures.

  - Finished slopes generally should not exceed a 2:1 ratio unless to blend with natural terrain.

- Require building foundations to conform with the natural slope on building sites, where the slope is fifteen percent (15%) or greater.

- Permit an appropriate residential use on surplus public or quasi-public land when all findings, directives and action statements contained within this division can be met.

- Establish provisions to permit agricultural uses as an interim use.

- Establish the neighborhood commercial land use district for small convenience shopping centers in larger neighborhoods, that are compatible with the residential character and contain convenience commercial uses, where residents can purchase daily or frequently-used necessities, household goods and personal services in proximity to their place of residence.

- Require a Conditional Use Permit application for all commercial development in order to achieve compatibility with the community.

- Encourage consistent architectural theme within each commercial development.

- East of Day Creek, locate convenience shopping centers at least one mile away from existing or approved shopping centers in order to discourage strip commercial.

- Locate convenience shopping centers where they will provide focal attraction and identity within the neighborhood, such as the area between Day and Etiwanda Creeks, north of the Etiwanda Specific Plan area.

- Establish highway commercial centers to accommodate through traffic.

- Permit highway commercial centers at intersections with regional highways, when developed.

- Orient the commercial activities to traveler usage.

- Signs shall be limited to those advertising on-site activities in a sufficient number that adequately identifies the activities.

- Special screening standard shall be established for roof equipment, storage and structures.

- Coordinate land use strategies with the planning programs of local service agencies.

- New development shall be required to finance the expansion of the infrastructure required to support that development, with the cooperation of the County to optimize the financial mechanism used.

- A special district shall be formed with appropriate powers to provide the necessary public services, including, but not limited to, parks, street landscaping and trails.

- Upon establishing a special district within the Planning Area for public service purposes, a comprehensive plan should be prepared to define the level of service necessary for the community and to address the financing, construction and maintenance program necessary for facilities and infrastructures not provided by the developer.

- All new major projects shall be required to annex into the special district formed within the planning area for public service purposes or as an interim measure, developed as a planned residential project with an appropriate level of service provided by Homeowner Association.

EAST VALLEY SUBREGION (EV) (RSA 29)

The East Valley (EV) subregion which extends from the community of Bloomington on the West to Yucaipa on the East (see Map III-K), is currently experiencing tremendous growth pressures. One of the major constraints to future development in this subregion is inadequate infrastructure facilities. Most of the communities are old and the existing infrastructure facilities, which were sized for lower density development, may become overburdened if the current growth trend in this subregion continues.

The East Valley subregion contains seven incorporated cities: Colton, Grand Terrace, Loma Linda, Highland, Redlands, Rialto and San Bernardino. Also, detailed plans were prepared and adopted for the following communities: Agua Mansa Specific Plan, Bloomington, East Loma Linda/West Redlands, Oak Glen and Yucaipa. The East Valley (I-10) Corridor Specific Plan is scheduled for adoption in the summer of 1989, and a plan is being prepared for the East Redlands (Crafton) area. The spheres of influence of each of the incorporated cities, and areas within each of the seven unincorporated communities mentioned above are considered individual planning areas.

Listed below are prefixes for each of the planning areas. These prefixes shall be applied in the applicable planning areas on the official General Plan maps.

Planning Areas	Prefix	Planning Areas	Prefix
Agua Mansa	AM	Highland sphere	HD
Bloomington	BL	Loma Linda sphere	LL
Colton sphere	CL	Oak Glen	OG
Grand Terrace sphere	GT	Redlands sphere	RD
E. Loma Linda/West Redlands	LR	Rialto sphere	RT
East Redlands	ER	San Bernardino sphere	SB
East Valley (I-10) Corridor	EC	Yucaipa	YU
		Other areas in the East Valley not within any of the planning areas listed above	EV

Maps III-L through III-Y represent the planning areas in the East Valley region. Following are profiles of each of the planning areas in the East Valley.

SAN BERNARDINO COUNTY GENERAL PLAN
REGIONAL STATISTICAL AREA 29

MAP III K

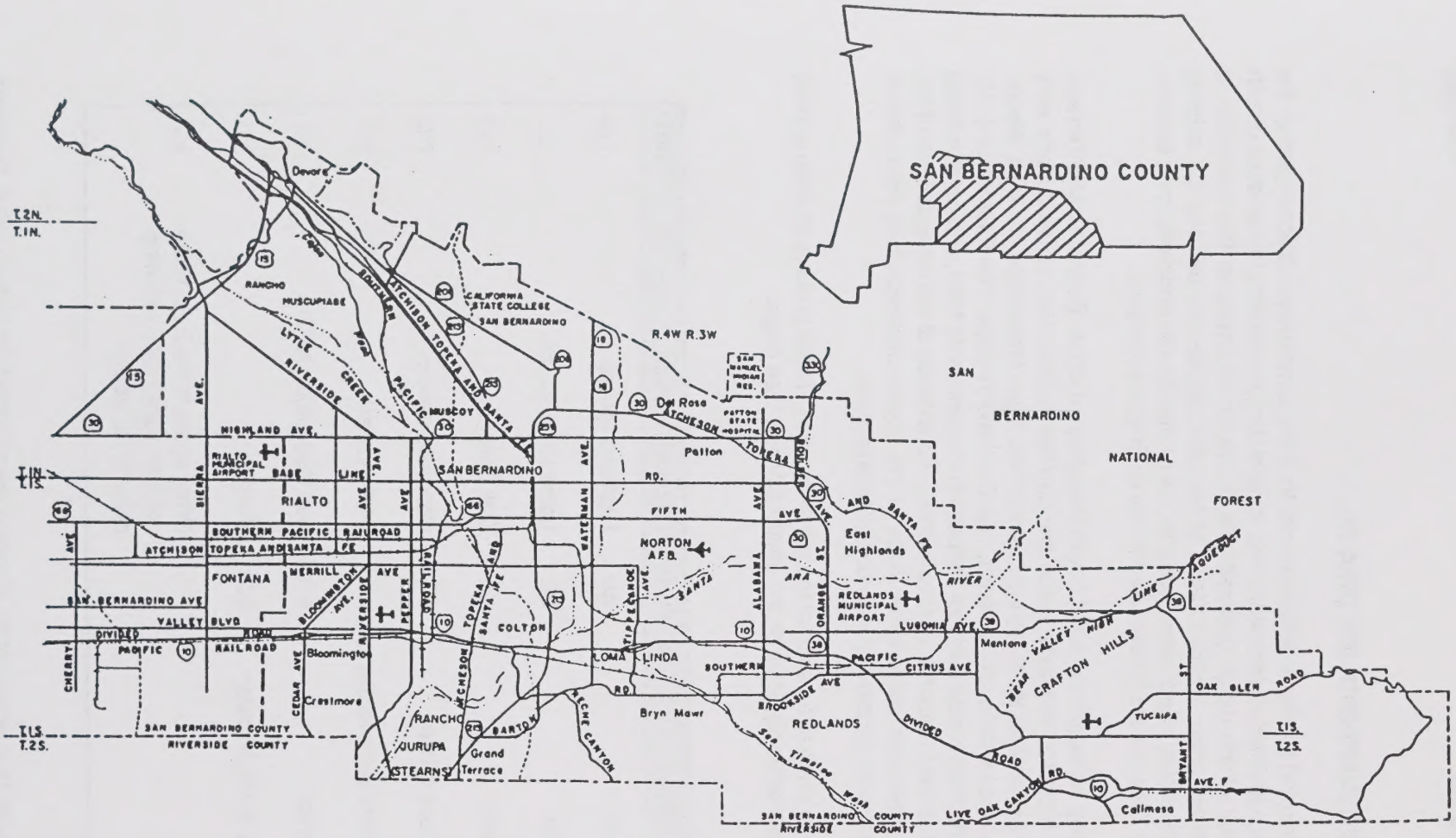


Figure III-9
Summary of Colton Planning Area

General Location: East Valley (RSA 29) **Specific Location:** See Map III-L

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.

SAN BERNARDINO COUNTY GENERAL PLAN
COLTON SPHERE OF INFLUENCE

MAP-III-L

NORTH

SCALE-MILES

0 1/2 1 1 1/2

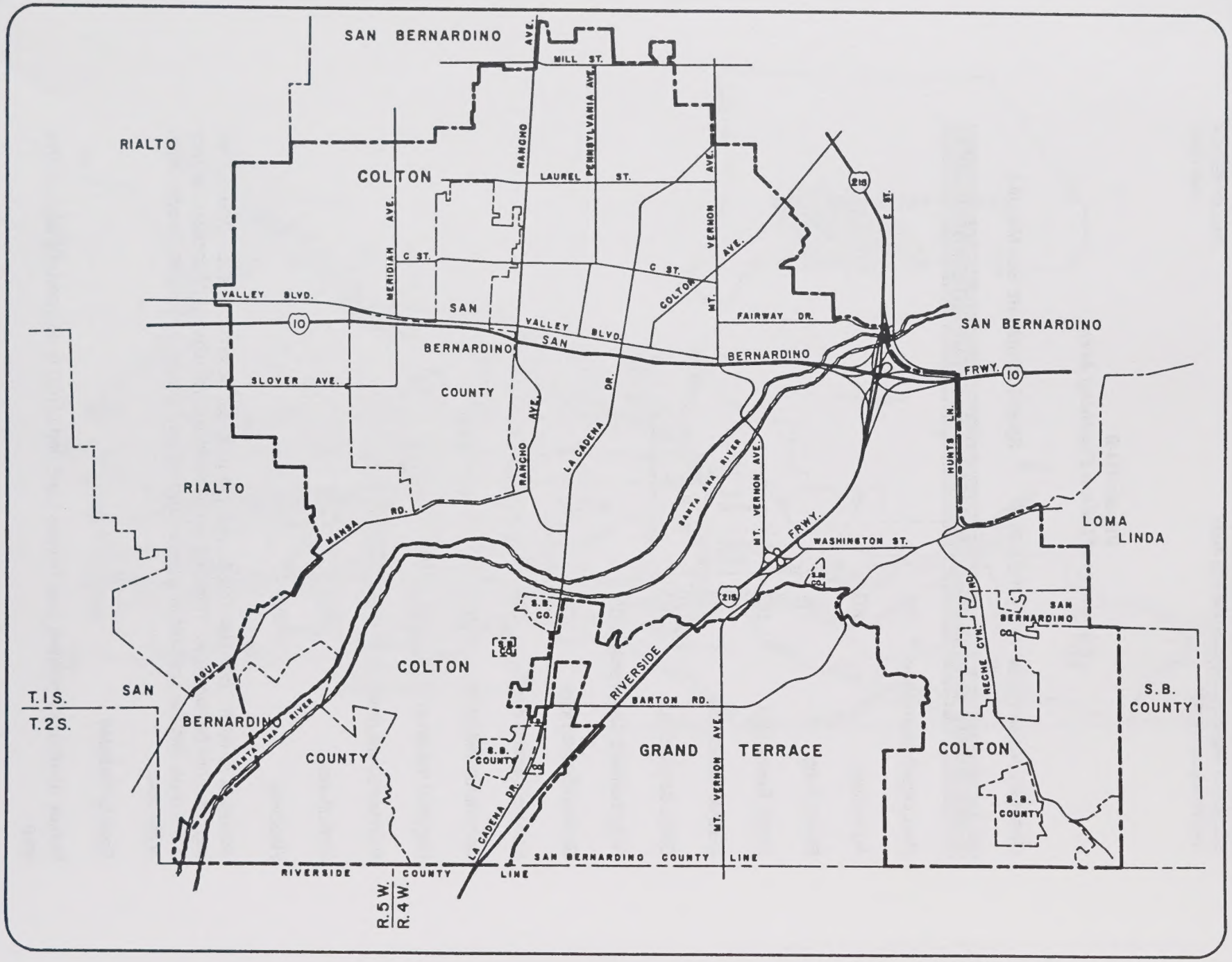


Figure III-10
Summary of Grand Terrace Planning Area

General Location: East Valley (RSA 29) **Specific Location:** See Map III-M

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

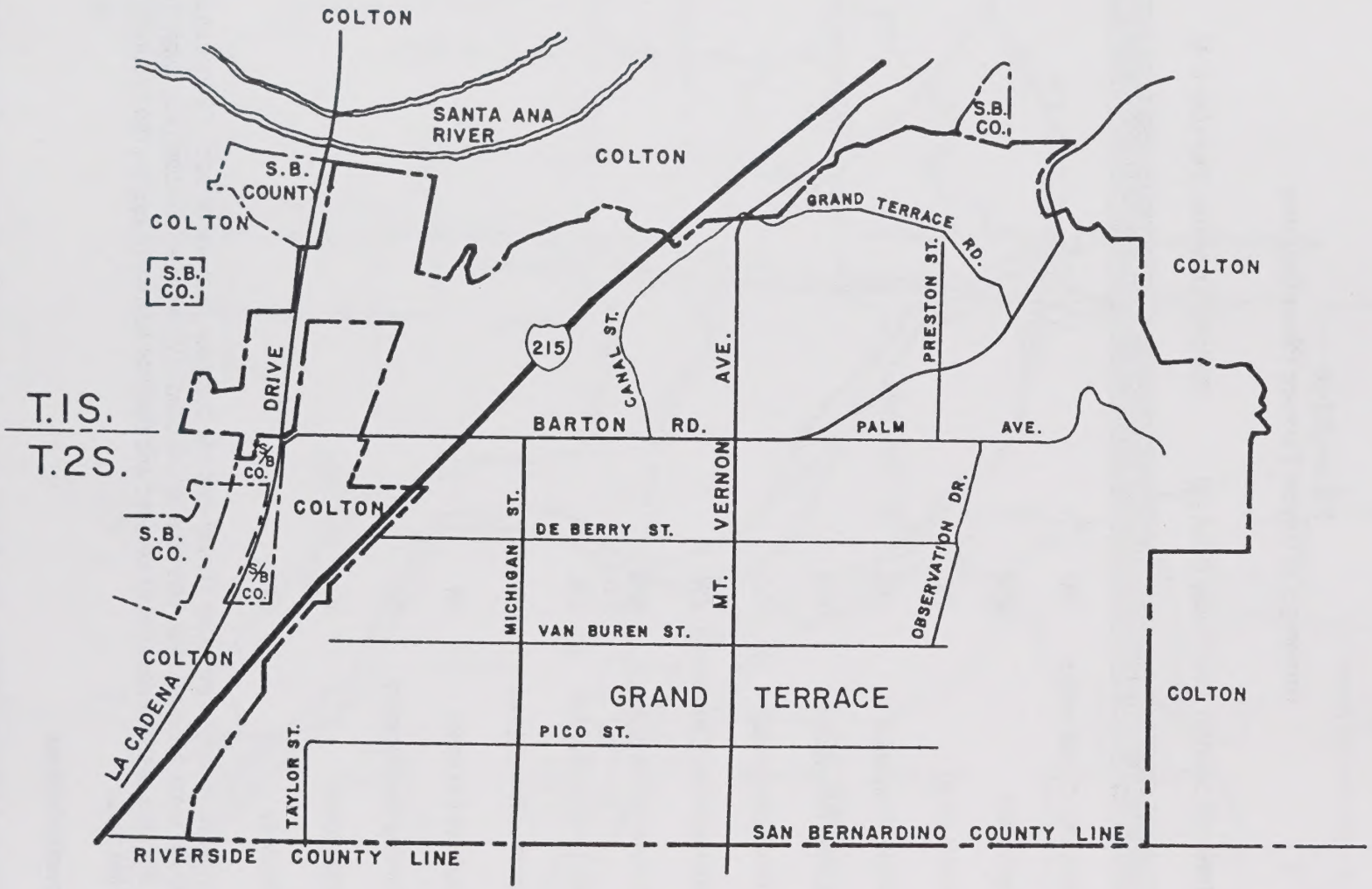
Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.

SAN BERNARDINO COUNTY GENERAL PLAN

GRAND TERRACE SPHERE OF INFLUENCE

MAP III-M



NORTH

SCALE-MILES

0 1/2 1 1 1/2

Figure III-11
Summary of Highland Planning Area

General Location: East Valley (RSA 29) **Specific Location:** See Map III-N

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

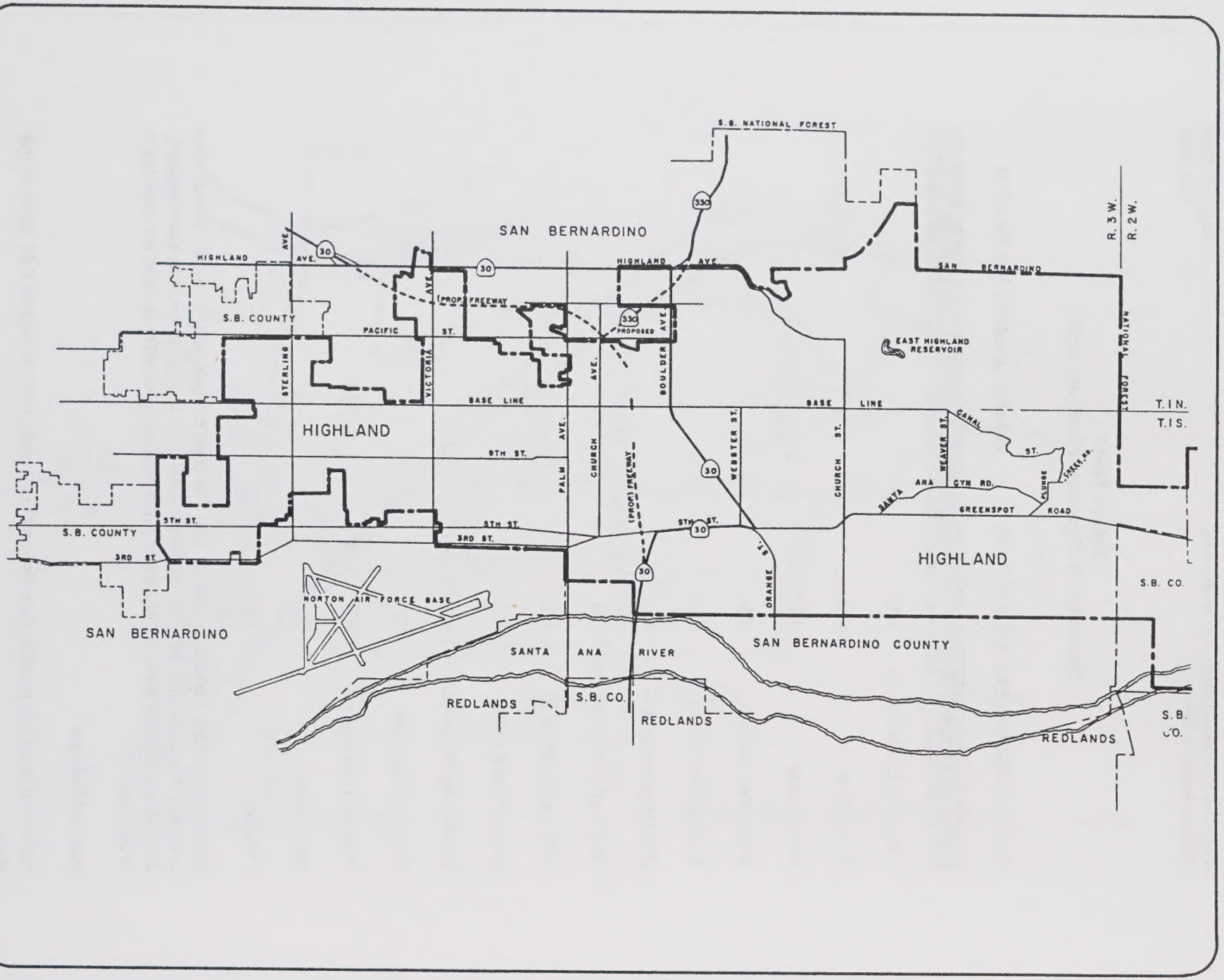
Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.

SAN BERNARDINO COUNTY GENERAL PLAN

HIGHLAND SPHERE OF INFLUENCE

MAP III-N



NORTH

SCALE-MILES

0 1/2 1 1 1/2

Figure III-12
Summary of Loma Linda Planning Area

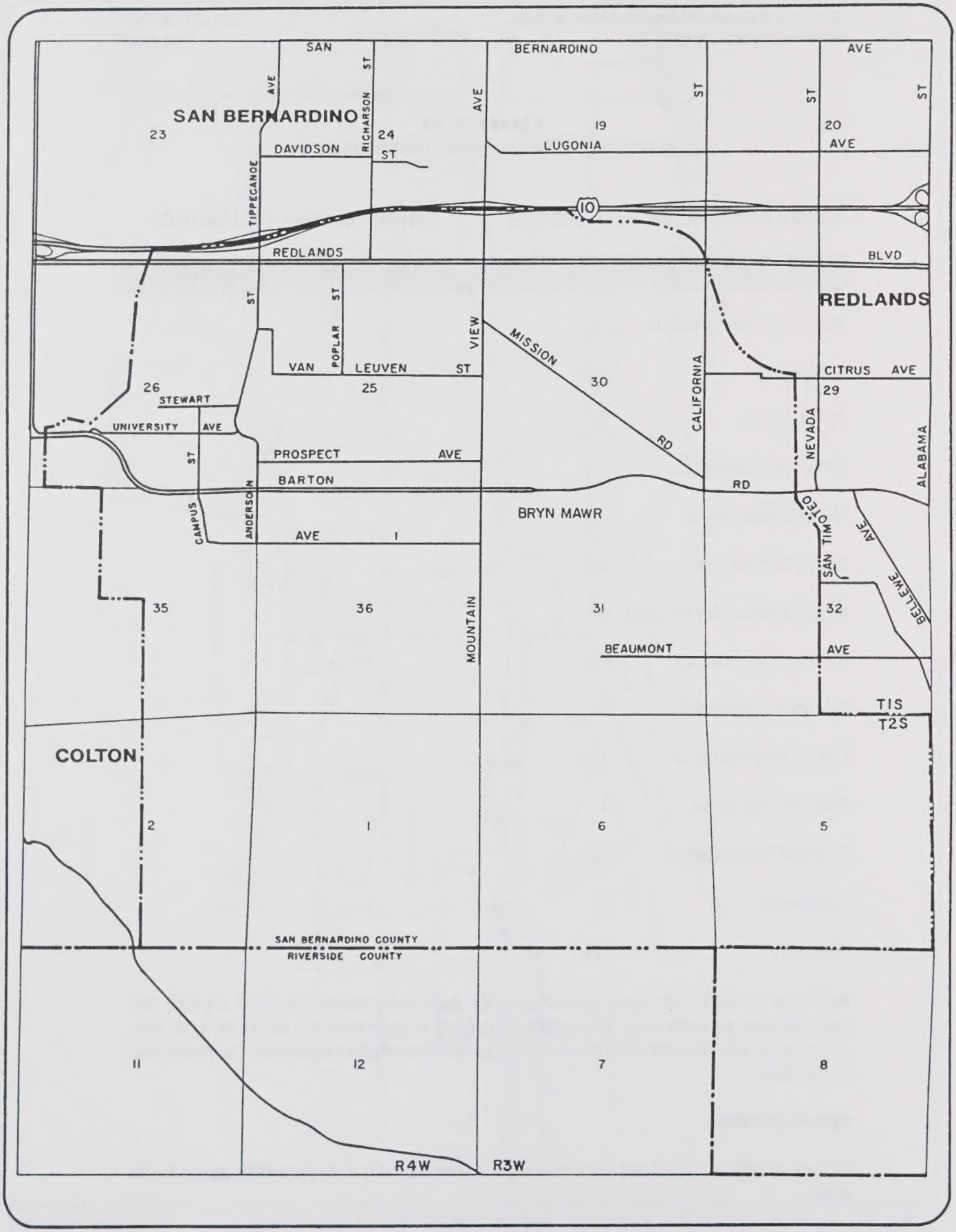
General Location: East Valley (RSA 29) **Specific Location:** See Map III-O

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
LOMA LINDA SPHERE OF INFLUENCE PORTION

MAP III-O

NORTH

MILE .25 .5
SCALE

Figure III-13
Summary of Redlands Planning Area

General Location: East Valley (RSA 29) **Specific Location:** See Map III-P

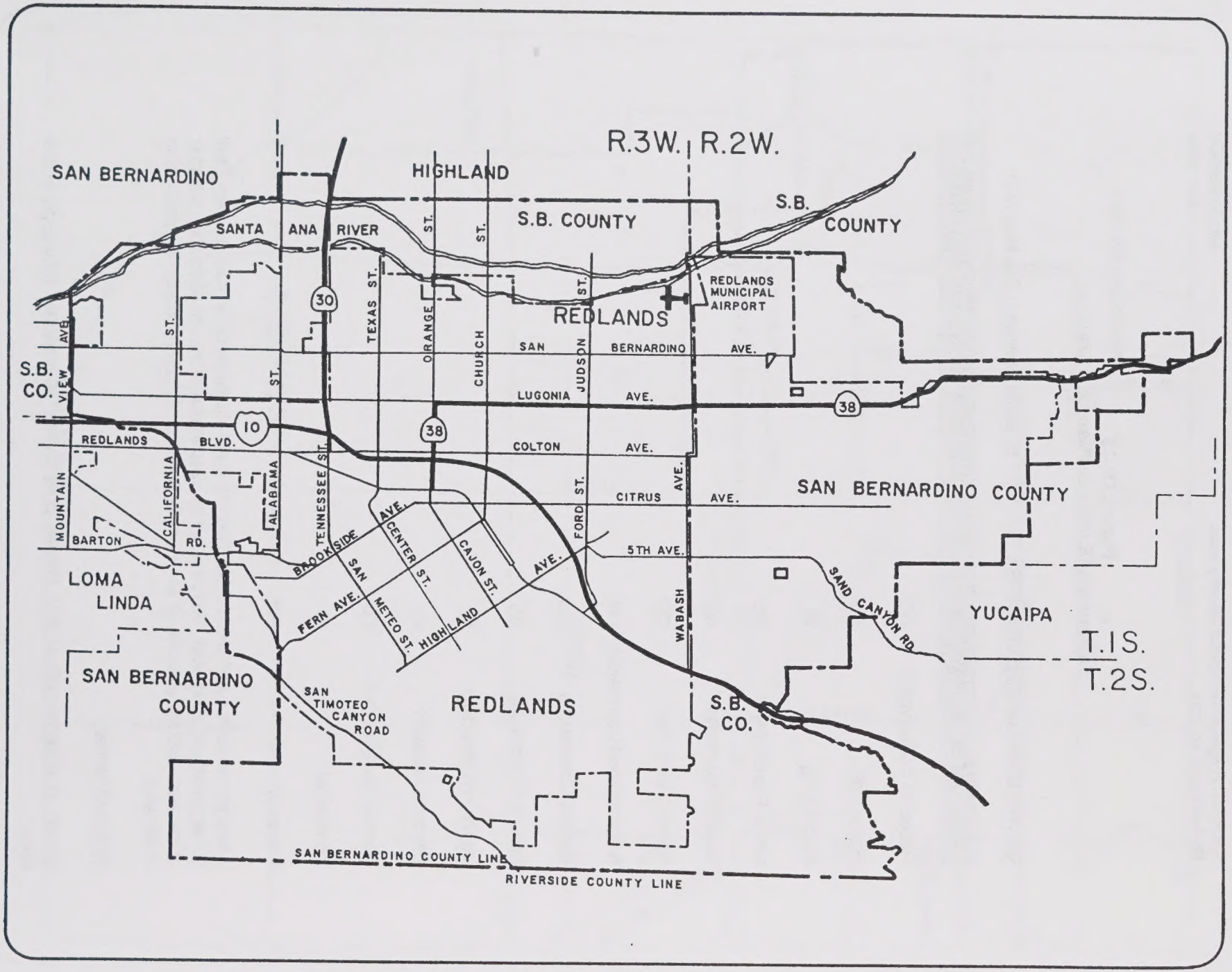
LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.

SAN BERNARDINO COUNTY GENERAL PLAN NORTH
REDLANDS SPHERE OF INFLUENCE
MAP III-P



Redlands Policies/Actions

Natural Resources

Soils/Agriculture

- In Accordance with California Government Code (66474.4[b]), the Board of Supervisors has made the finding that parcels smaller than ten (10) acres in size within Agricultural Preserves in the Redlands Sphere Planning Area can sustain agricultural uses permitted under Land Conservation Contracts, provided the Planning Agency makes the additional findins outlined in Section 86.031150 of the County Code. The maximum net housing density shall not be greater than one (1) dwelling unit per five (5) gross acres (1 du/5 ac). These provisions shall not override the minimum parcel size of any specific land use district.

Figure III-14
Summary of Rialto Planning Area

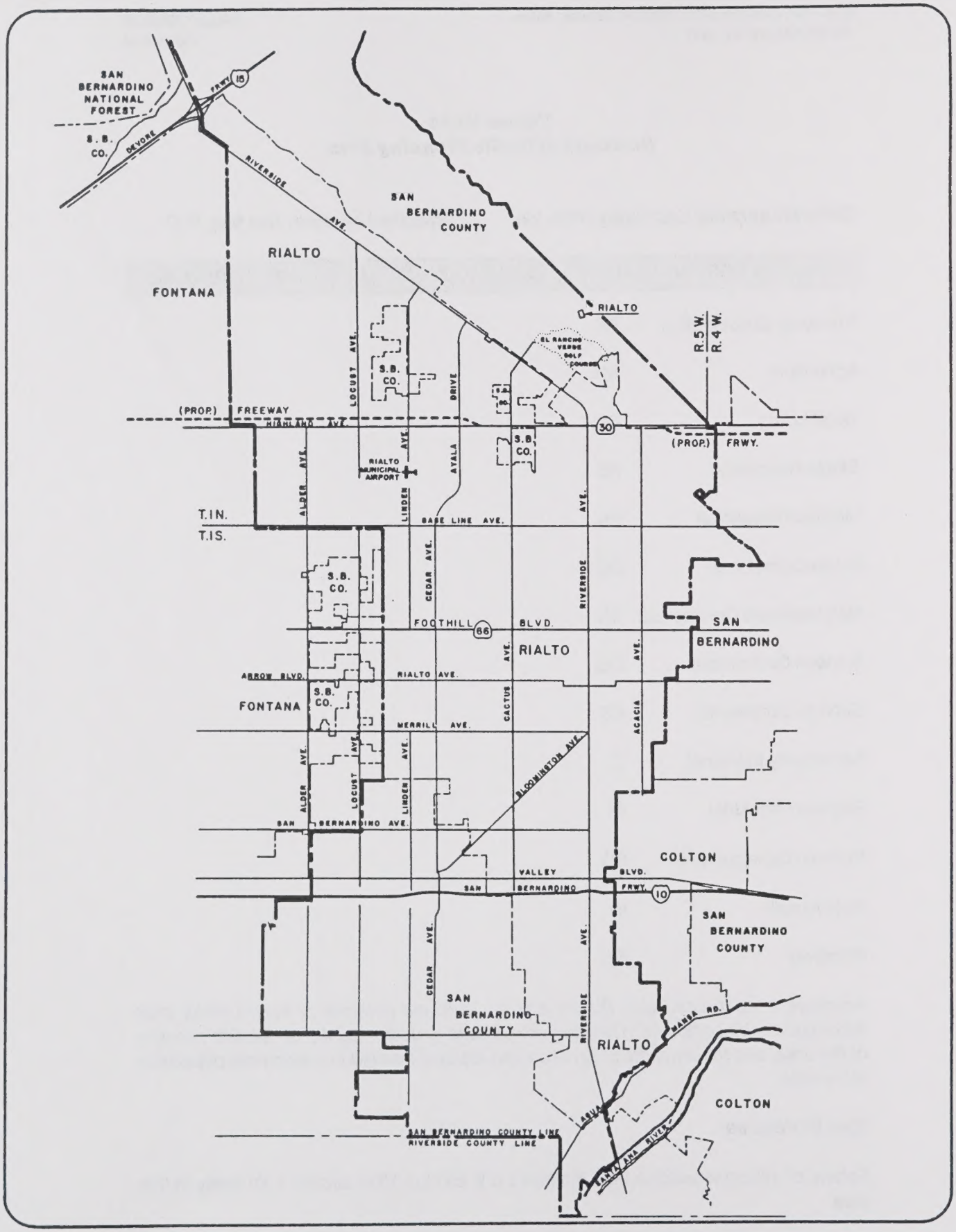
General Location: East Valley (RSA 29) **Specific Location:** See Map III-Q

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN NORTH
RIALTO SPHERE OF INFLUENCE
MAP III-Q

SCALE-MILES
0 1/2 1 2

Figure III-15
Summary of San Bernardino Planning Area

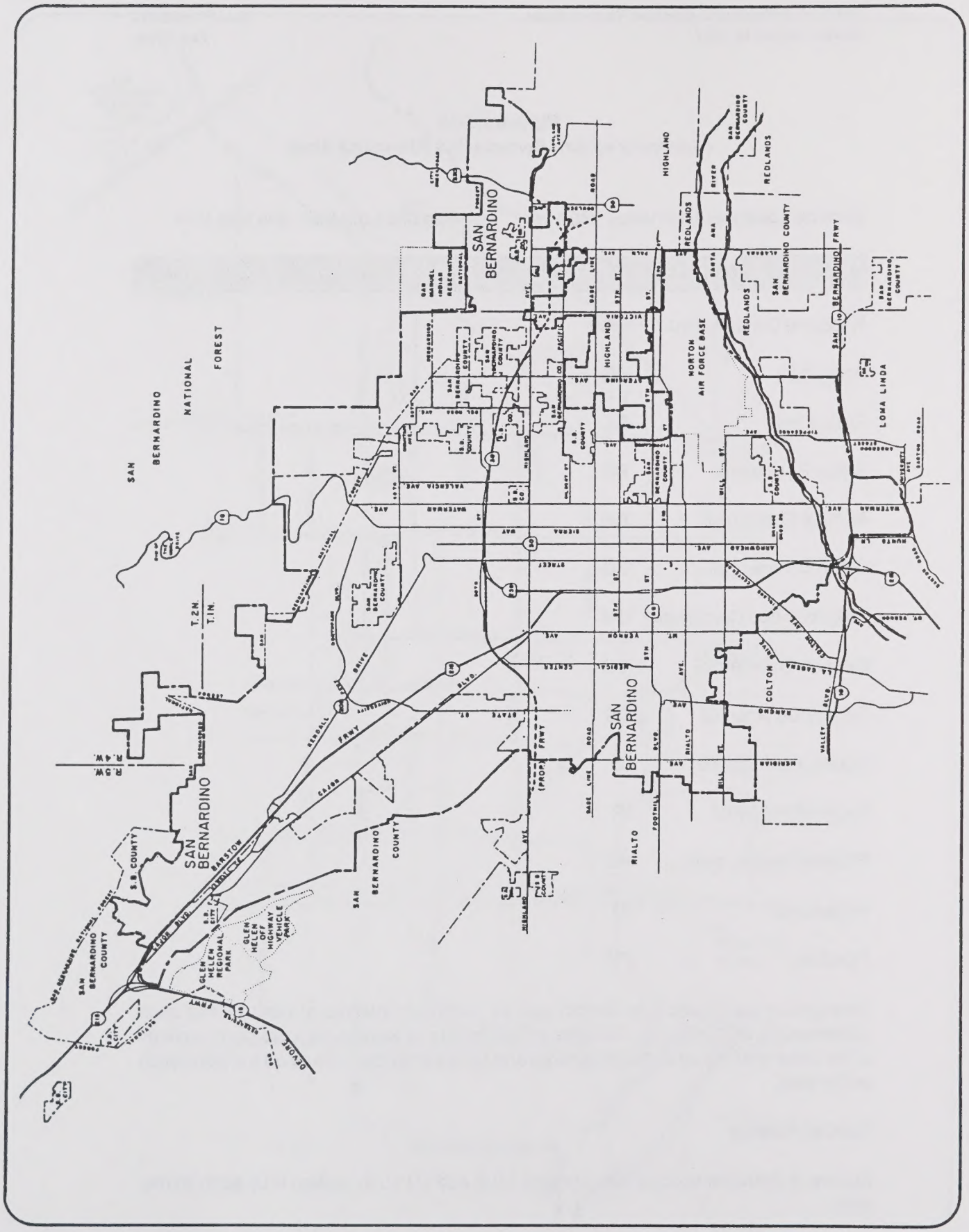
General Location: East Valley (RSA 29) **Specific Location:** See Map III-R

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
SAN BERNARDINO SPHERE OF INFLUENCE

NORTH
MAP III-R

SCALE-MILES
0 1 2 3

Figure III-16
Summary of Agua Mansa Planning Area

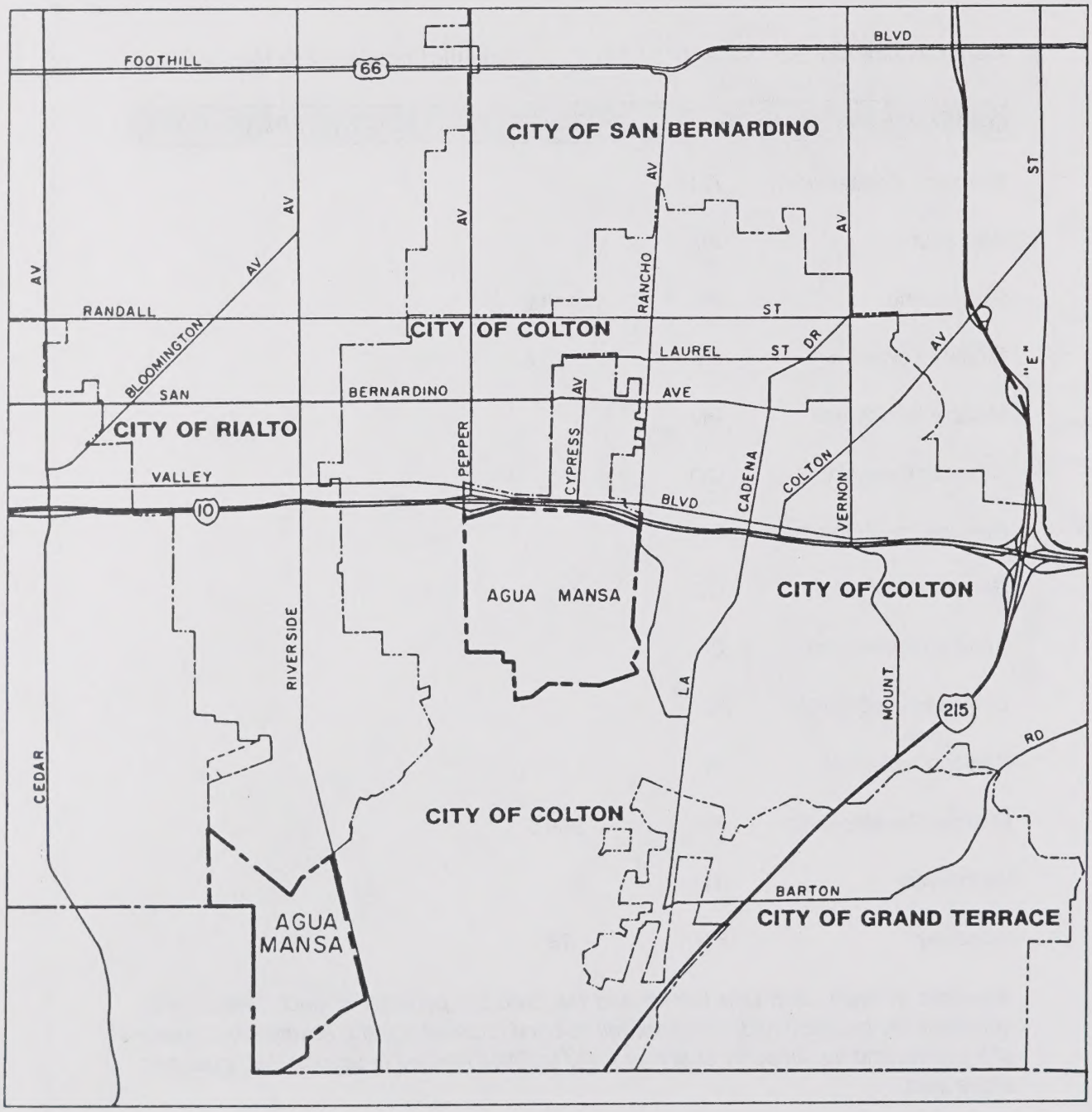
General Location: East Valley (RSA 29) **Specific Location:** See Map III-S

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL	148.2	
Single Residential	RS	78.8	
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD	958.5	
Institutional	IN		
Floodway	FW	78	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Specific Policies

See Agua Mansa Specific Plan text for supplemental policies and standards.



SAN BERNARDINO COUNTY GENERAL PLAN
AGUA MANSA INDUSTRIAL CORRIDOR PORTION

MAP III-S

NORTH

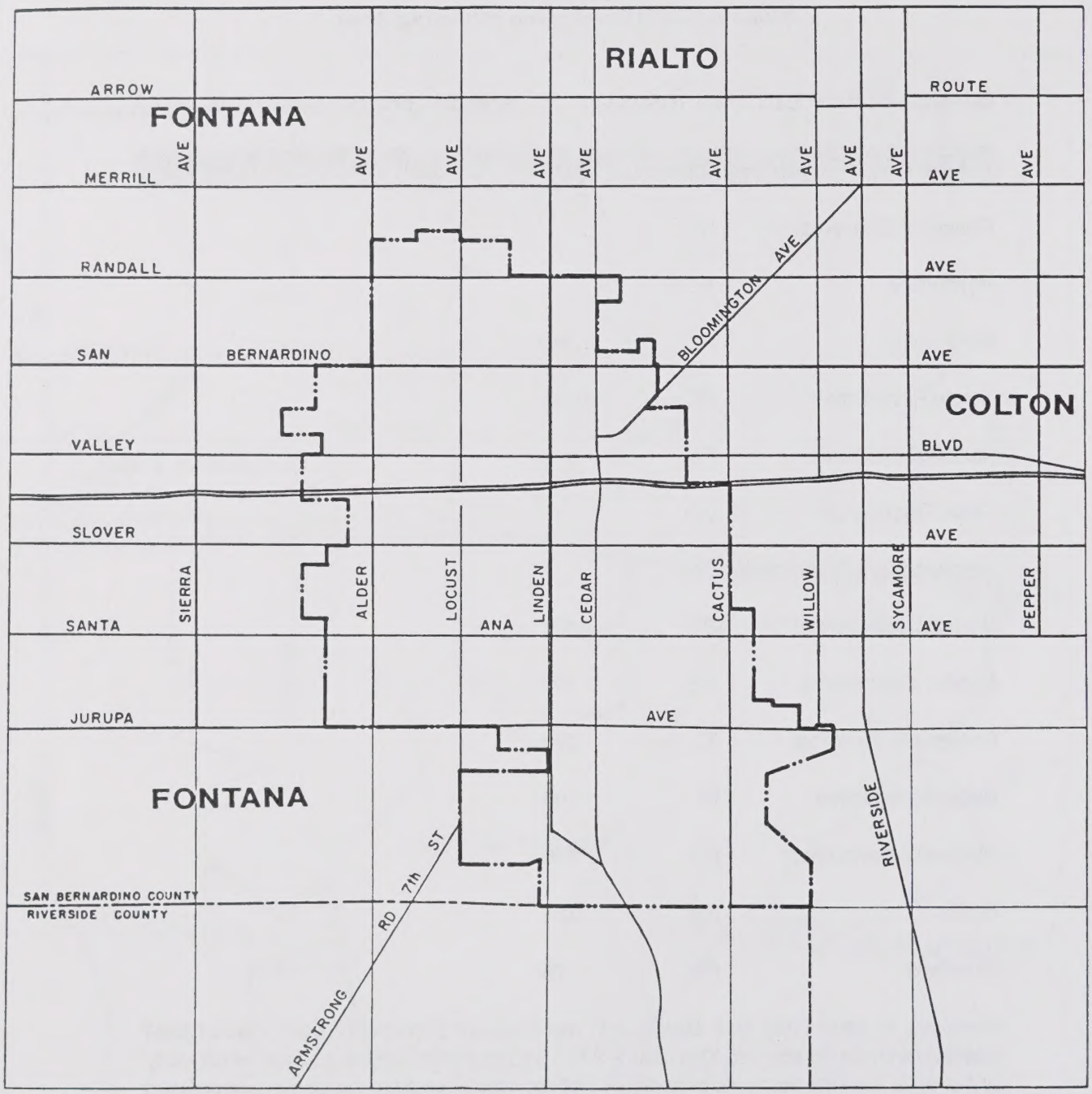
FEET 1000' 2000'
SCALE

Figure III-17
Summary of Bloomington Planning Area

General Location: East Valley (RSA 29) **Specific Location:** See Map III-T

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL	1,362	
Single Residential	RS	1,849	
Multiple Residential	RM	119	
Office Commercial	CO		
Neighborhood Commercial	CN	8	
General Commercial	CG	191	
Service Commercial	CS	194	
Community Industrial	IC	278	
Regional Industrial	IR	198	
Planned Development	PD	930	
Public	PB	331	
Floodway	FW	78	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
BLOOMINGTON COMMUNITY PLAN PORTION

NORTH

MAP III-T

MILE .25 .50
SCALE

Bloomington Policies/Actions

Man-made Hazards

Noise

- Regulate land uses around the railroad classification yard so that the noise impact of the yard upon neighboring residential areas is minimized.

- Through the provisions of the Noise Bond for the railroad classification yard, require the Southern Pacific to purchase the most severely noise impacted residential properties around the yard.

- Encourage the Southern Pacific to research and develop means of eliminating or controlling noise at its sources within the yard area.

Natural Resources

Open Space/Recreation/Scenic

- Recognize the Jurupa and Townsend Trails as equestrian trails which should be linked to the regional system. Locate the Jurupa trail adjacent to or within the Jurupa Avenue right-of-way. Request that the Transportation Department consider locating the Jurupa trail within the Jurupa Avenue right-of-way and to consider the proposed trail location when requesting additional road dedication and improvements from individuals and developers.

- Encourage the organization of the community trails committee in the Bloomington area to review future community equestrian trail development.

Man-made Resources

Transportation/Circulation

- Require the installation of full street improvements for higher density residential, commercial and institutional developments permitting safe pedestrian access to commercial centers and schools.

- Require road improvements consisting of paving, curbs and gutters on major, secondary highways, collector streets, and for major tract developments where the density is greater than one (1) dwelling unit per gross acre.

- Delineate Cactus Avenue and Alder Avenue as crossing the Interstate 10 Freeway and the Southern Pacific Railroad and railyard on the Circulation Plan Map.

- Because Cedar Avenue is the major north-south street through Bloomington, the community is desirous of beautifying this street through landscaping

requirements. The residents are hopeful that by requiring the installation of landscaping as a condition of development that Cedar Avenue may eventually be a true scenic route, rivaling its tree-lined appearance around the turn of the century.

- Allow the formation of a committee of Bloomington citizens to assist the Planning Director in the review of the landscape plan for development projects located on Cedar Avenue.

Land Use/Growth Management

- Encourage the design of Planned Developments to provide and maintain a rural atmosphere with planned clustered residential facilities.

- Allow those areas of the community designated for medium density (4 DU/AC) residential land uses to be fully developed within their density limitations while limiting potential conflicts with adjacent rural residential land uses.

- Allow for continued commercial development and/or expansion along the west side of Cedar Avenue, roughly between Santa Ana Avenue and Slover Avenue, and on both sides of Cedar Avenue, south of Jurupa Avenue.

- Expand commercial development along Cedar Avenue to include those parcels of land located on the west side of the street from Slover Avenue northward to the freeway.

- Encourage the transition of the existing mobilehome parks on the north side of Interstate 10 to General Commercial land use types. This may be accomplished by designating the 41-acre area which contains these mobilehome parks as a General Commercial (CG) Land Use District on the Official Land Use Map.

- Encourage the transition of the existing single-family residential neighborhood at Taylor Street, located on the north side of the freeway, to Service Commercial land use types. This may be accomplished by designating this residential neighborhood (approximately 37 acres) on the Land Use Map as a Service Commercial (CS) Land Use District thereby prohibiting new housing development.

- Direct that the existing residential land uses south of the Southern Pacific main line and railyard are to transition to light industrial land uses.

Intergovernmental Coordination

The residents of Bloomington continually state that the Cities of Fontana and Rialto are encroaching upon their community by annexing portions of Bloomington in an incremental fashion. The community feels that they are being denied the right to exist as a separate entity with its own community identity. The community attempted to

influence the Local Agency Formation Commission (LAFC) to not place Bloomington within the sphere of influence of either the City of Fontana or Rialto. However, the LAFC (following an incorporation study conducted by the Bloomington MAC) decided in November, 1979 to place the majority of the community in Rialto's sphere of influence with a portion of the western part of the community to be in Fontana's sphere. By placing the community within the spheres of influence of Fontana and Rialto, annexations to the respective cities are more easily accomplished. With the prospect of continuing annexation to the Cities of Rialto and Fontana, the community is hopeful that the cities will jointly adopt the community standards adopted by the County, thereby preserving some community identity for Bloomington.

- Work with adjacent local agencies to insure that the planned land use districts for Bloomington are compatible with those of the adjacent agencies.

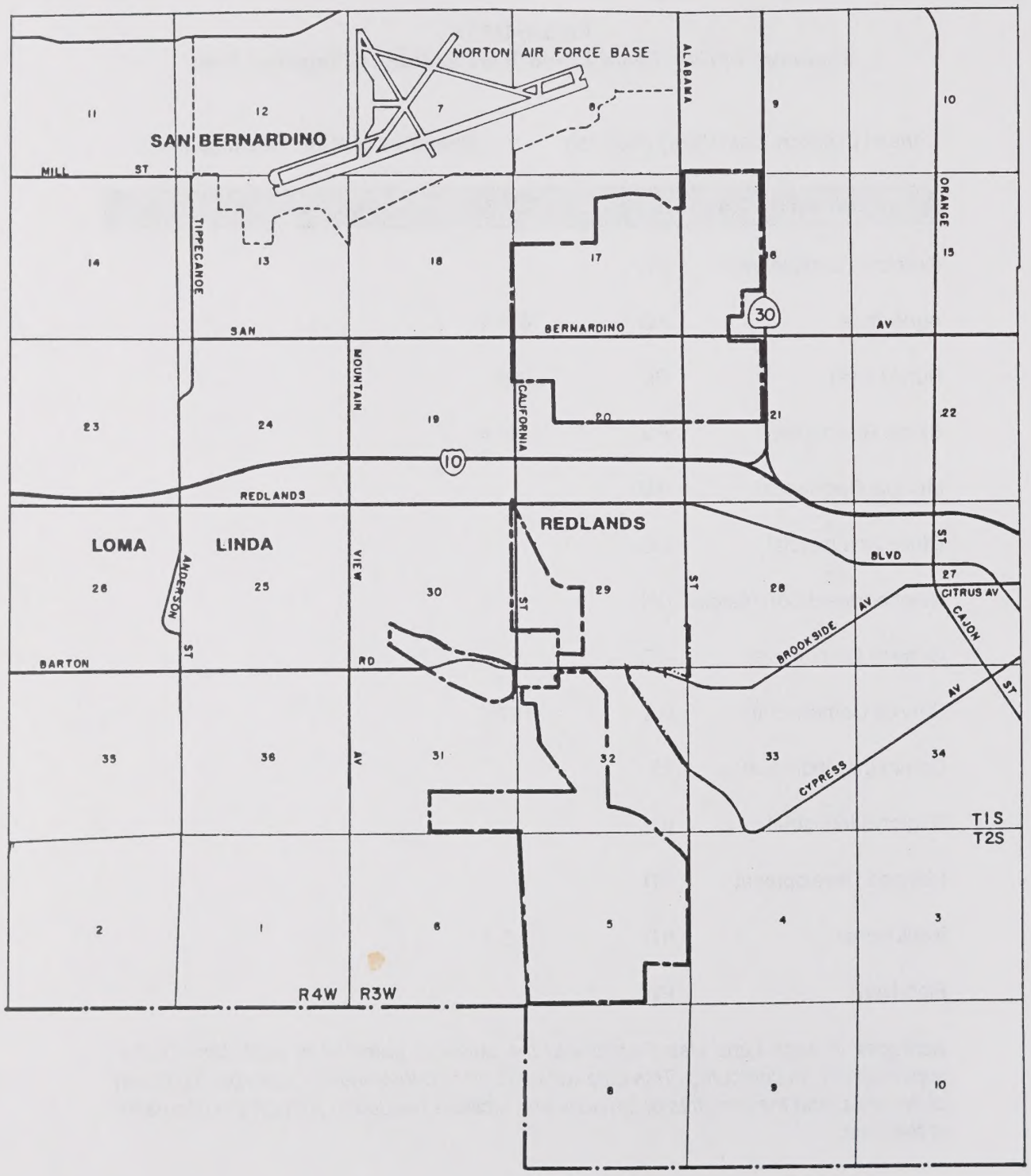
- Encourage the Cities of Rialto and Fontana to adopt the adopted Official Land Use Districts of the Planning Area as prezoning of the applicable sites.

Figure III-18
Summary of East Loma Linda/West Redlands Planning Area

General Location: East Valley (RSA 29) **Specific Location:** See Map III-U

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG	627.7	
Rural Living	RL	1,088	
Single Residential	RS	40.4	
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS	187.6	
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN	5.4	
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
EAST LOMA LINDA / WEST REDLANDS COMMUNITY PLAN MAP III-U

NORTH

MILE .1 .2 .3 .4 .5
SCALE

East Loma Linda/West Redlands Policies/Actions

Natural Resources

Open Space/Recreation/Scenic

- The Washingtonia robusta (Mexican Fan Palm) trees are of historical and scenic value to the Community and should be preserved.
- Require that circulation, setbacks, access locations, design criteria, and land use provide for the transplanting or preservation of the Washingtonia robustas along the following streets:
  - East side California Street, between Almond Street and the Santa Ana Wash (168 trees).
  - West side Nevada Street, between Almond Street and the Santa Ana Wash (255 trees).
  - East side Nevada Street, between Almond Street and Palmetto Avenue (144 trees).
  - South side Almond Avenue, between California Street and Nevada Street (55 trees).
  - North side Almond Avenue, between California Street and Nevada Street (8 trees).
  - North side San Bernardino Avenue, between Nevada Street and Alabama Avenue (60 trees).
  - South side Olive Avenue, between California Street and Alabama Avenue (127 trees).
  - North side Olive Avenue, between California Street and Alabama Avenue (220 trees).
  - South side Palmetto Avenue, between California Street and Alabama Avenue (145 trees).
  - North side Palmetto Avenue, between California Street and Nevada Street (119 trees).

Man-made Resources

Land Use/Growth Management

- Permit residential development where services are readily available. Limit residential development along Interstate 10 and the proposed Tennessee Freeway. Limit residential development in high hazard areas.
- Small neighborhood convenience commercial centers should be developed along major access routes compatible with the policies of adjacent cities.
- Restrict neighborhood centers to a minimum of one mile of each other or another commercial area.
- All new development within the spheres of Loma Linda and Redlands respectively shall comply with the service requirements of the appropriate city.
- All new development shall have the necessary service commitments prior to approval.
- Actively, pursue all available funding for sidewalk improvements including County Capital Improvement Programs, State and Federal grant funds and the Office of Community Development's Community Block Grants for public improvements.

Figure III-19
Summary of East Valley Corridor Planning Area

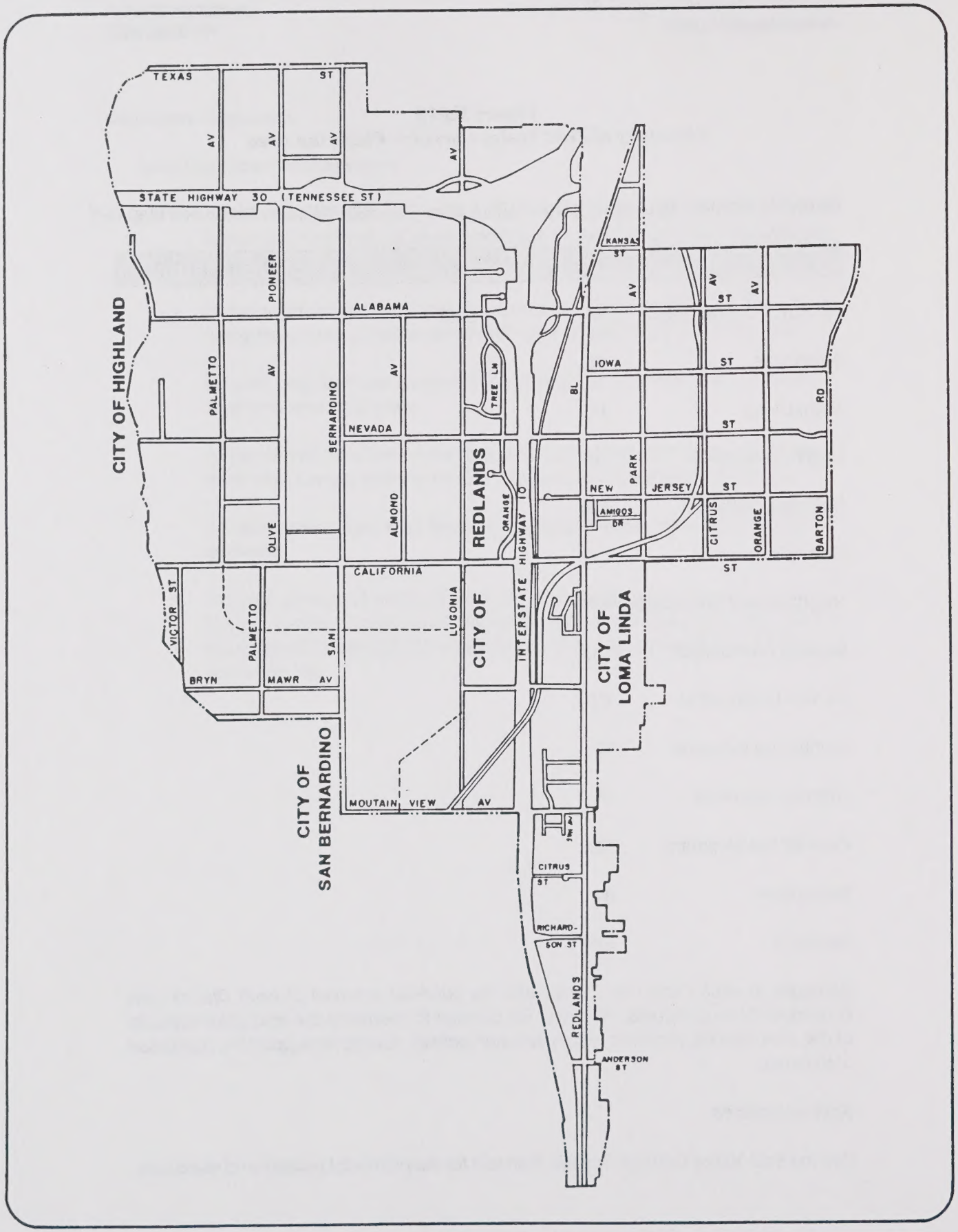
General Location: East Valley Region (RSA 29) **Specific Location:** See Map III-V

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	94.3	
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

See the East Valley Corridor Specific Plan text for supplemental policies and standards.



SAN BERNARDINO COUNTY GENERAL PLAN
EAST VALLEY CORRIDOR SPECIFIC PLAN PORTION

NORTH

MAP III-V

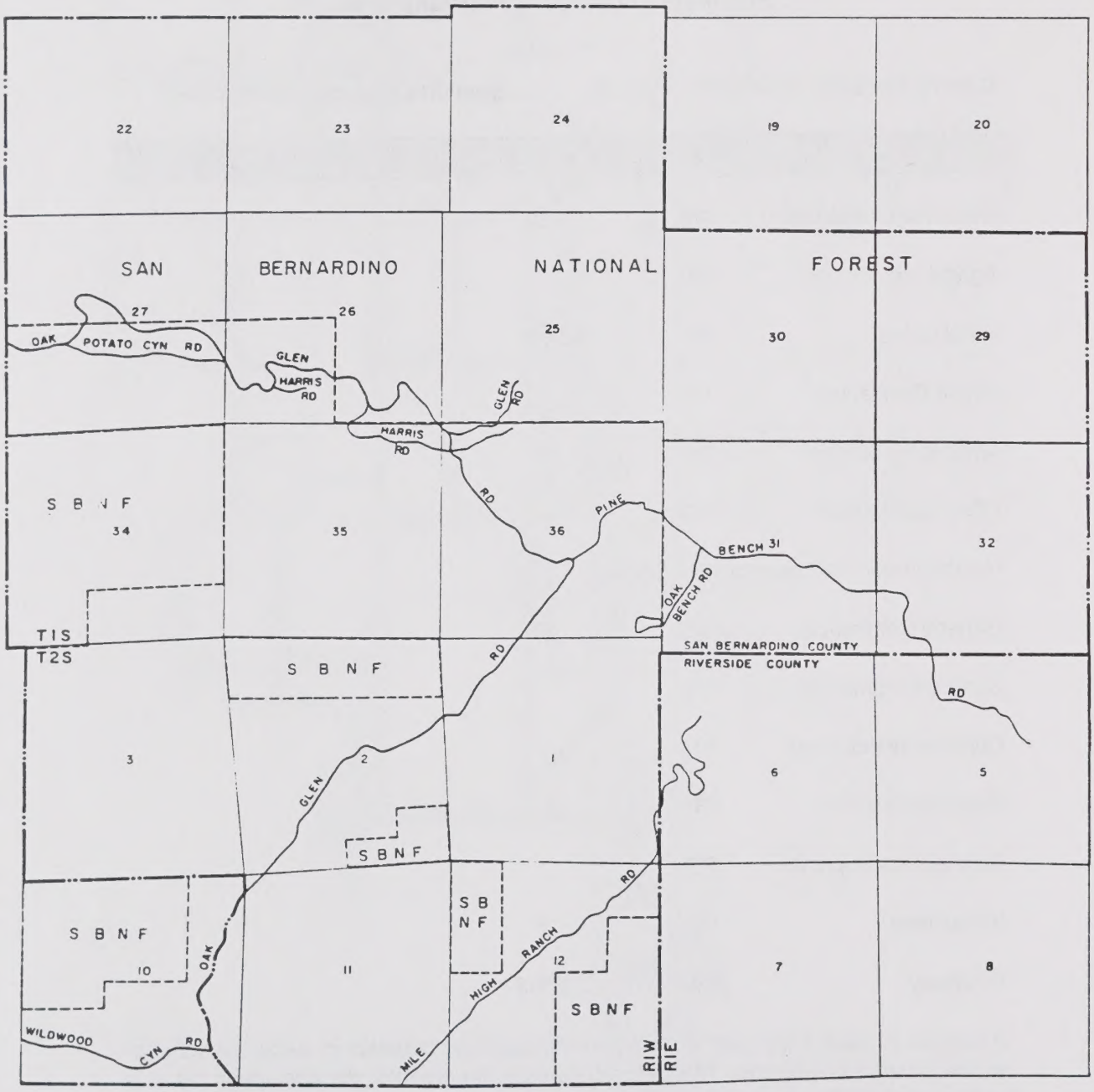
FEET 600' 1200'
SCALE

Figure III-20
Summary of Oak Glen Planning Area

General Location: East Valley (RSA 29) **Specific Location**: See Map III-W

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	1,760	
Agriculture	AG		
Rural Living	RL	5,863	
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG	38	
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN	6	
Floodway	FW	2,374.3	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
OAK GLEN COMMUNITY PLAN PORTION

MAP III - W

NORTH

MILE .25 .5

Oak Glen Policies/Actions

Natural Hazards

Flood

- A minimum 50-foot building setback from all natural drainage courses except where a greater setback is specified by the County Flood Control Department, or where the Flood Control Department indicates a deviation from the minimum setback would not result in a hazard to the public safety.

- Require that new development provide added protection for utilities which cross drainage courses.

  - Require that utilities crossing natural drainage courses be buried a minimum of five (5) feet below the stream bed, or other accepted methods be employed.

  - Require a concrete wall to be installed on the downstream side of all utilities crossing stream beds.

Natural Resources

Open Space/Recreation/Scenic

- Require that Oak Glen Road be maintained as a county designated scenic route. This may be accomplished by:

  - Using the Preservation-Scenic Highways Overlay for the area 200 feet on either side of the right-of-way of Oak Glen Road.

  - Requiring strict adherence to the development standards contained within the Preservation-Scenic Highways Overlay.

- Limit the removal of trees and other natural vegetation by:

  - Requiring strict adherence to the County of San Bernardino's Tree Preservation Ordinance.

  - Limiting the removal of orchard trees to that necessary for a development to occur.

  - Limiting the removal of natural vegetation other than trees to that necessary for fire protection purposes in hillside areas.

- The establishment of greenbelts between developed and undeveloped areas shall be encouraged to retain the agricultural appearance of Oak Glen. This may be accomplished by requiring new development to establish and main-

tain a greenbelt of apple or other suitable orchard trees, or other plantings suitable for greenbelts where trees are not feasible, between developed areas of 0 - 30% slope and undeveloped areas over 30% slope.

Soils/Agriculture

- Recognize the importance of agriculture to the character and economy of Oak Glen by:
  - Designating those areas used primarily for Agriculture as Agriculture District on the Land Use Map.
  - Encouraging the establishment of agricultural preserves and the use of the Williamson Act Contracts.
  - Requiring that where residential development occurs in an agricultural district, the retention of orchard areas adjacent to major access roads should be encouraged. The depth of such areas and the method of maintaining them shall be determined during the subdivision review process.

Man-made Resources

Transportation/Circulation

- Require that Oak Glen Road be maintained as a two-lane highway. This may be accomplished by:
  - Encouraging the construction of scenic vista pull-outs and other pull-outs in order to facilitate traffic flow.
  - Providing roadway widenings only to meet demonstrated traffic needs. Such widenings would normally be limited to safety-type improvements such as turning lanes, passing lanes, intersection widenings and shoulder widenings.

Land Use/Growth Management

- Prohibit intrusion of urban development into Oak Glen.
- Designate those areas exceeding thirty percent (30%) slope as Resource Conservation (RC) District, or as very low density (i.e., one unit per 10 or 20 acres) on the Official Land Use Map.
- Maintain a minimum parcel size of at least 2.5 acres.
- Permit only those commercial uses that are compatible with the existing resort commercial uses.

- Establish minimum design standards for commercial areas to ensure compatibility with the character of Oak Glen. This may be accomplished by:

  - Establishing community standards for commercial development that will compliment the country feeling of Oak Glen and the naturalness of the setting.

  - Providing standards for the review of signs to ensure compatibility with the scenic nature of the area.

  - Establishing community standards for screening between commercial and residential land uses that emphasize the use of landscaping and berms rather than artificial screening.

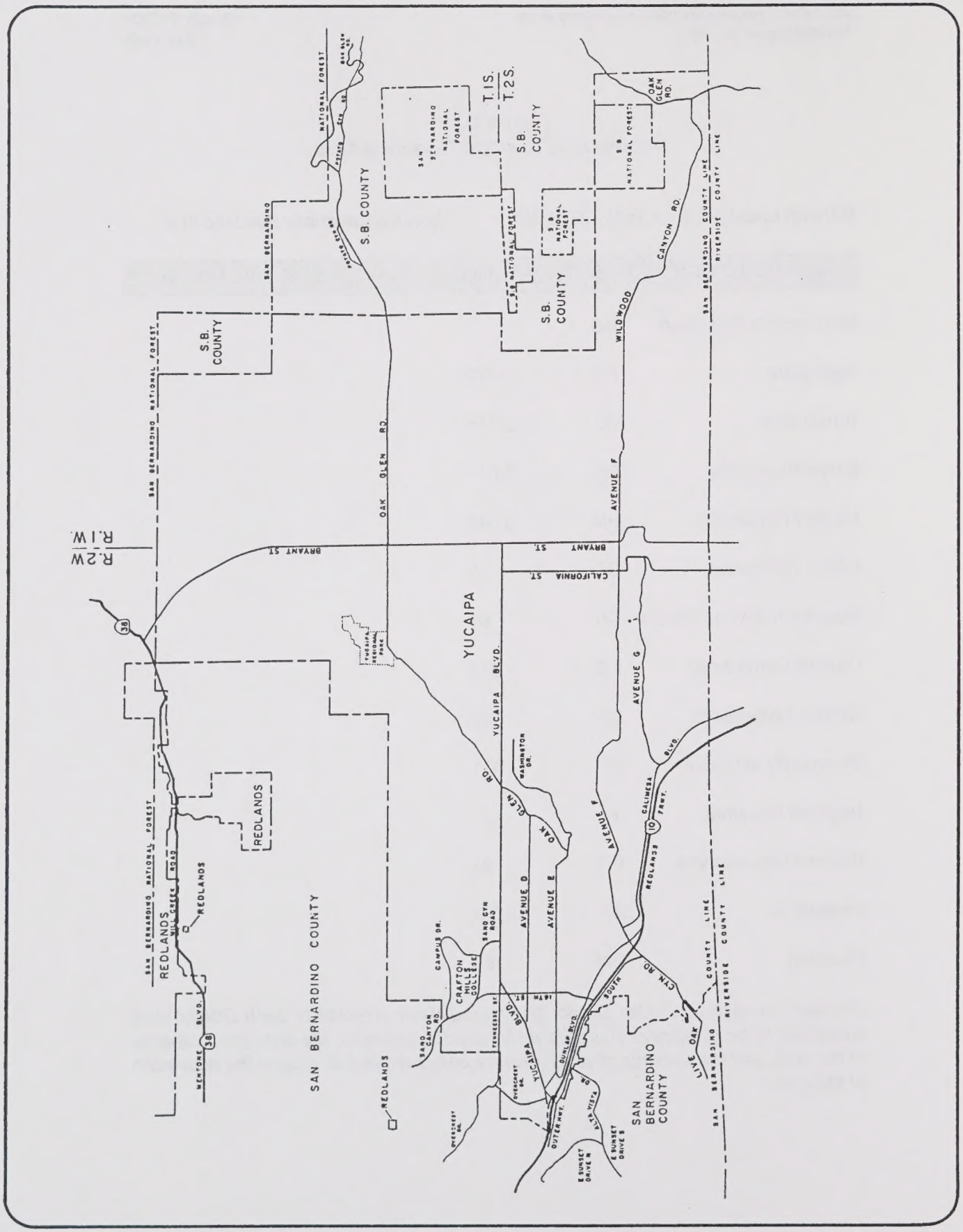
- Establish new commercial development contiguous to existing development in order to take advantage of existing parking facilities and reduce the negative impacts that noncontiguous development will have on traffic flow on Oak Glen Road.

Figure III-21
Summary of Yucaipa Planning Area

General Location: East Valley (RSA 29) **Specific Location:** See Map III-X

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG	2,179	
Rural Living	RL	8,784	
Single Residential	RS	5,044	
Multiple Residential	RM	3,548	
Office Commercial	CO	2	
Neighborhood Commercial	CN	69	
General Commercial	CG	310	
Service Commercial	CS	195	
Community Industrial	IC	311	
Regional Industrial	IR		
Planned Development	PD	84	
Institutional	IN	1,755	
Floodway	FW	97	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
YUCAIPA COMMUNITY PLAN

NORTH

MAP III-X

SCALE-MILES

0 1/2 1 1 1/2 2

Yucaipa Policies/Actions

Natural Hazards

Flood

- Because the potential for extensive structural damage during a flood exists in the Eastern Dunlap Acres area and the area bordering Wildwood Creek between Avenue F and G, minimize the flooding potential in these flood hazards areas.

- Prohibit the further subdivision of land within identified flood-prone areas.

- Work with the surrounding local agencies to insure that the General Plan land use districts for Yucaipa are compatible with the land use plans of the surrounding agencies.

- Support interjurisdictional problem solving on land use issues of common concern in the Yucaipa Valley between the Counties of San Bernardino and Riverside, and the City of Redlands.

Natural Resources

Open Space/Recreation/Scenic

- The County shall encourage the retention of areas used as "borrow sites" for the Seven Oaks Dam as public open space areas following the completion of mining activities.

- Because the Crafton Hills area provides an important open space resource, the County shall seek to preserve in natural open space those portions of the Crafton Hills adjacent to the Yucaipa Regional Park above an elevation of 2,400 feet MSL in general. However, greater flexibility is necessary to preserve the gradual slopes west of Crafton Hills College.

  - Limit recreational facilities within the Crafton Hills Open Space to those required for low-density uses, such as hiking, bicycling and equestrian use on defined trails. Intensive recreational facilities, such as ballfields, picnic areas (with the exception of sites with limited improvements), and grass play areas, shall be specifically excluded.

  - Seek to provide a connection between the Crafton Hills Open Space and the National Forest to the north to preserve the habitat value of this area. The corridor connecting those areas shall be of sufficient width and contain cover adequate to encourage wildlife dispersion between Crafton Hills and the National Forest.

- Coordinate County efforts to preserve the Crafton Hills Open Space with those of other agencies, especially the Cities of Redlands and Yucaipa.

Man-made Resources

Wastewater Systems

- Support State Water Quality Control Board's, Santa Ana Region imposed prohibition that restricts development to parcels one net acre or larger in the major portion of the Yucaipa-Calimesa area (roughly all of Yucaipa with the exception of Dunlap Acres).

Transportation/Circulation

- The primary concerns of the community regarding circulation in the Yucaipa area are described as follows:

  - An additional access route is necessary between Interstate 10 and Oak Glen.

  - Fewer curb cuts should be permitted along Yucaipa Boulevard to minimize traffic pulling out of commercial establishments.

  - Sidewalk improvements should be required in areas of high pedestrian use where sidewalks do not presently exist.

  - The Yucaipa Boulevard overpass on I-10 should be reconstructed to reduce traffic congestion.

  - Additional signalized intersections should be provided.

  - Road improvements should be required throughout the community to minimize street wash-outs in low-lying areas subject to flooding.

  - Designating Fifth Street a secondary highway between Yucaipa Boulevard and Oak Glen Road, while recognizing that since no road currently exists within this corridor, the location and design standards, including the width, grade and alignment of this future road will not be determined until a specific plan is adopted or until a development plan for the area is considered.

- Promote the use of public transit through the location of benches for public transit and through the designation of locations of bus pullouts in commercial areas.

Land Use/Growth Management

- Establish a full range of land uses to meet community needs. A balance of commercial, professional, administrative, governmental, residential, open space, and public service uses should be provided through Land Use Regulations, the Capital Improvement Budget and other mechanisms.

- Encourage that actions should strengthen the community identify. These actions include the rehabilitation of older structures through available grant funds and other means, and the consideration of locations for a future civic center.

- Promote and preserve the rural setting in designated areas of the community. This may be accomplished by identifying and maintaining specific areas for low-density residential or agricultural uses and by establishing development standards that enhance the rural character within identified areas. One method to accomplish this is to allow residential subdivisions which create parcels 2 1/2 acres or less, only when:

  - There is adequate access.

  - They are a logical extension from existing development.

  - They are served by an adequate domestic water supplier.

  - They have adequate fire protection.

  - The development will not have a detrimental effect on the underground water basin.

- Establish maximum parcel size requirements and allowable uses (the entire site, including commercial structures, parking, and landscaped area should not exceed five (5) acres in size) and permit only those retail uses that serve the local neighborhood.

- Identify all areas where urban services are needed:

  - Permit land uses requiring the full range of urban services only within areas designated as urban.

  - Identify areas of 5-year service need and plan for capital facilities and services within these areas first.

  - Require service commitments prior to approval of new development.

  - Require that proposed development outside existing water district boundaries annex to an existing water district or develop a mutual

water company to service the development. Water facilities must meet the standards and specifications of the Yucaipa Valley Water District.

- Use factors, such as the availability of water, sewers, and the ability of the soil to safely accommodate underground sewage disposal as criteria for establishing maximum allowable density.

- Ascertain if adequate school capacity exists prior to approval of proposed residential development of five lots/units or greater.

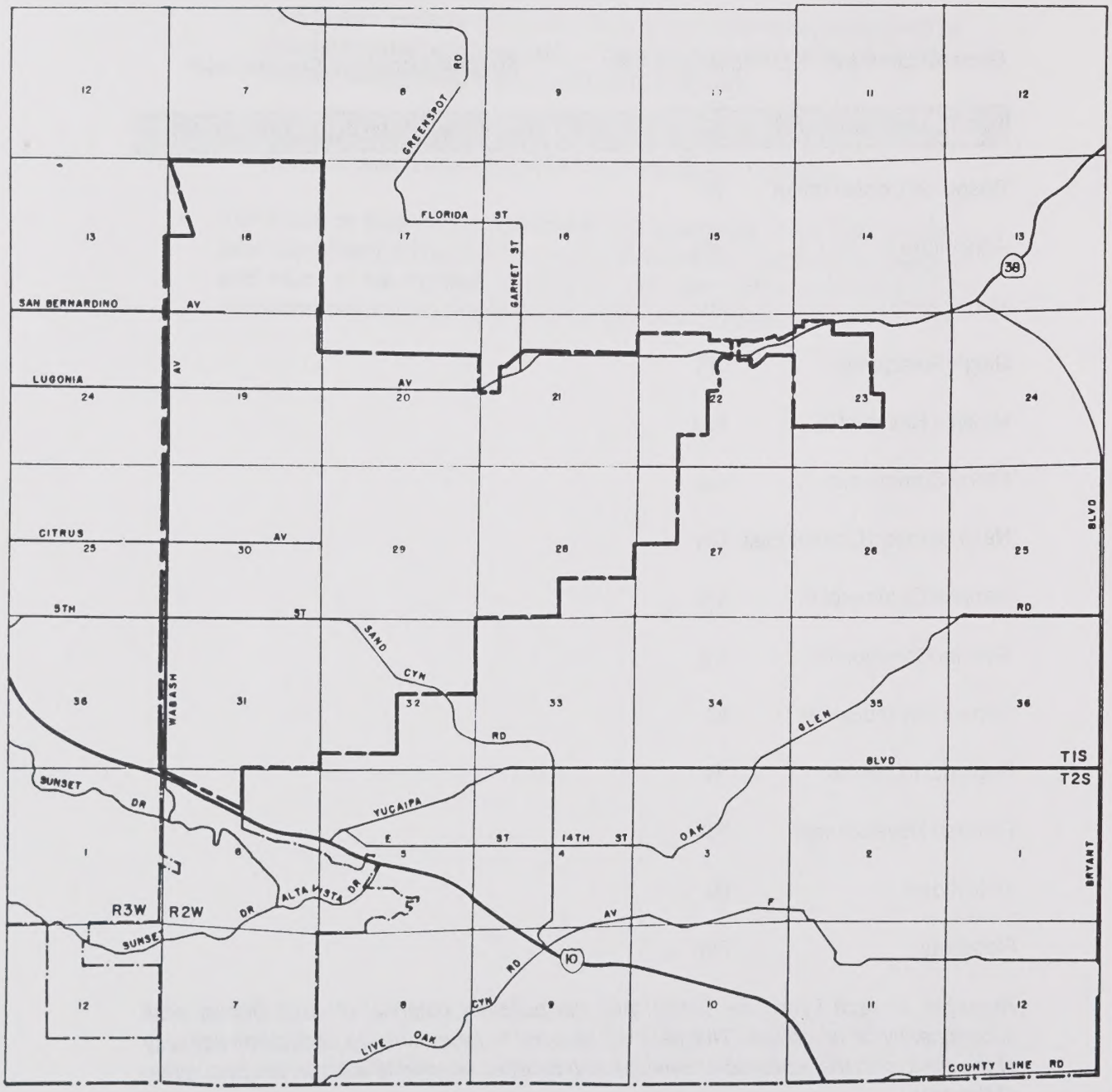
- The Board of Supervisors determines that expansion of the light industrial land use districts in Live Oak Canyon is not consistent with the goals, policies, and intent of the Yucaipa Community Plan and discourages any further expansion beyond those industrial designations existing on August 1, 1988.

Figure III-22
Summary of East Redlands (Crafton Hills) Planning Area (Proposed)

General Location: East Valley (RSA 29) **Specific Location**: See Map III-Y

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
EAST REDLANDS (CRAFTON HILLS) PLAN

NORTH
MAP III-Y

MILE .5
SCALE

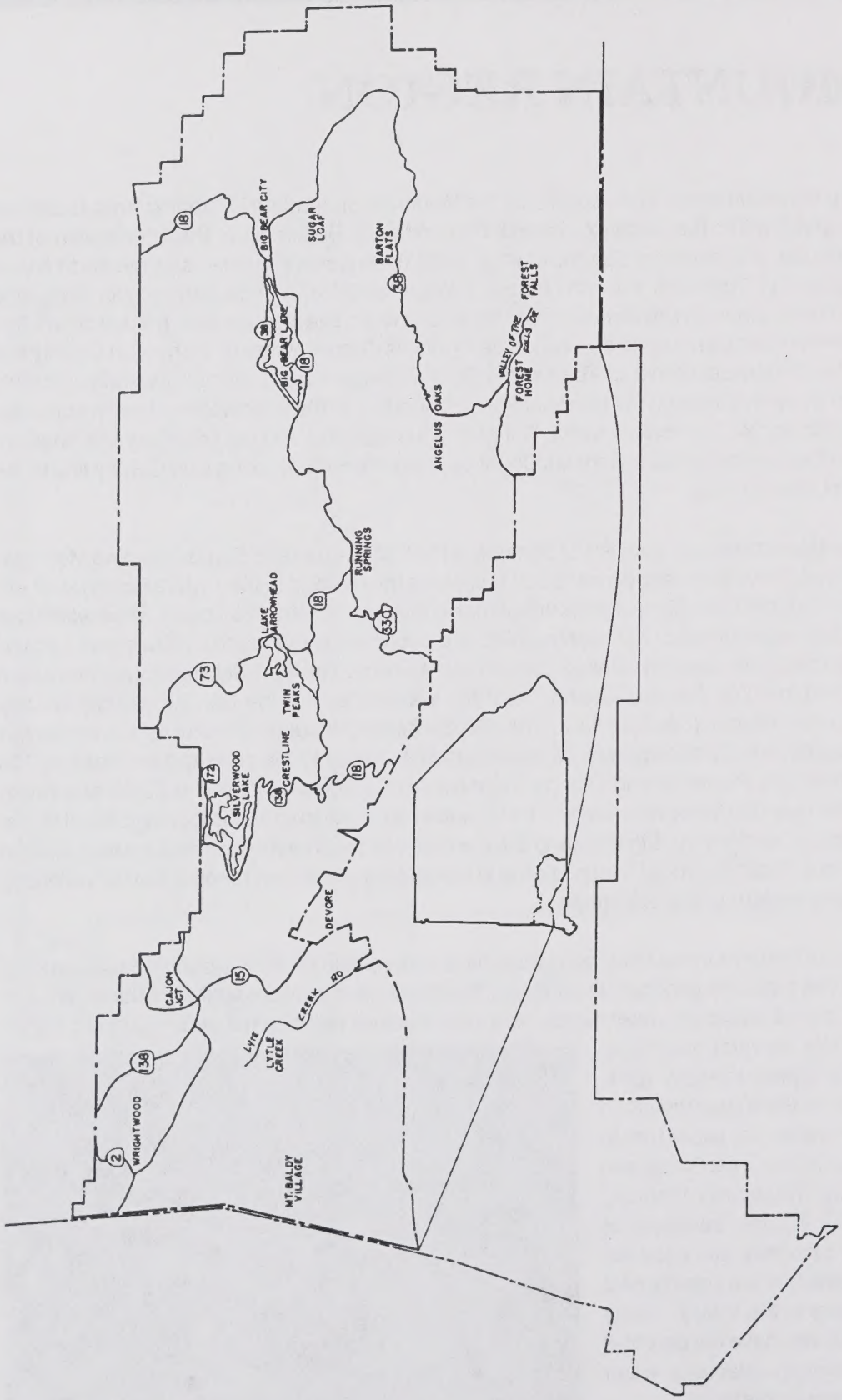
C. MOUNTAIN REGION

The Mountain which also represents the Mountain Subregional Planning Area is defined as areas within the following described boundaries: Beginning at the intersection of the boundary line between San Bernardino and Los Angeles Counties and the north line of Section 31 Township 4 North, Range 7 West, SBB&M, thence generally easterly and southerly along the National Forest boundary to its intersection with the boundary line between San Bernardino and Riverside Counties; thence westerly along said County line to the southwest corner of Township 1 South, Range 1 East; thence generally northerly and westerly following the National Forest boundary to the intersection of north boundary of Section 24, Township 1 North, Range 8 West, SBB&M and the boundary line between San Bernardino and Los Angeles Counties; thence northerly along said County line to the point of beginning.

The Mountain region consists of portions of the San Gabriel and San Bernardino Mountain ranges. Elevations range from 2,000 feet along the foothills to the 11,502 foot peak of Mt. San Gorgonio, the highest peak in Southern California. Of the 870 square miles within this region, approximately 715 square miles are public lands managed by State and Federal agencies, principally the United State Forest Service. The San Gabriel Mountains, which extend into Los Angeles County, form the western end of the San Bernardino County mountain region. (See Map III-Z) The San Bernardino Mountains make up the remainder (including Mt. San Gorgonio). Of significant importance to the downstream areas of San Bernardino, Riverside and Orange Counties are the headwaters of the Santa Ana River, which lie within these mountains. The Mountain region also contains four significant lakes: Gregory, Arrowhead, Big Bear and Silverwood. The mountains experience a four-season climate. The differences in elevation and topography are in part responsible for variations in temperature and precipitation.

Most of the uses in the Mountain region have been single-family residential developments and this pattern is expected to continue. The physical/natural constraints of the region and the lack of adequate water supply and infrastructure facilities needed to support higher density development preclude higher intensity uses. Most of the future growth in the region is expected to occur in the Crest Forest and Hilltop Community Planning Areas mainly because of their proximity and easy accessibility to the employment centers in the Valley. These areas also have the potential to develop adequate water and sewer systems.

Snow-covered Joshua Trees at the base of the mountains; Phelan



SAN BERNARDINO COUNTY GENERAL PLAN
REGIONAL STATISTICAL AREA 30 PORTION

NORTH

MAP III-Z

MILE 1 2 3 4 5
5 SCALE

Generally, the Mountain region is faced with a host of natural and man-made constraints that considerably limit the developability of the region:

- Roads are narrow and winding and the existing development patterns in the region makes it almost impossible or economically infeasible to widen the roads.
- The physical features and limited circulation system in many areas significantly limit accessibility of emergency vehicles as well as delivery of service.
- The physical features, the abundant vegetation and the rugged terrain make the region a major fire hazard area.
- Existing sewer systems are at or nearing capacity in all the Planning Areas and there are problems of infiltration into the lines in winter.
- There is potential groundwater overdraft around Big Bear and Baldwin Lakes.
- Steep slopes limit the area available for development as well as the density.
- There is a potential disruption to the region's ecology resulting from erosion of the vegetation on the slopes into the streams and lakes.
- Active earthquake faults that transverse the region and the possible occurrence of landslides and mudflows also limit the development potential of the region.

The Mountain region has one (1) incorporated city - Big Bear Lake. The sphere of influence of this city (Big Bear Lake) is considered an individual planning area. Community plans have been adopted for five (5) unincorporated communities in the region: Bear Valley, Crest Forest, Hilltop, Lake Arrowhead, and Lytle Creek. Areas covered by each of these five communities are considered individual planning areas as well. Other Mountain areas that are not within the sphere of influence of Big Bear Lake or within any of the five communities mentioned above shall be considered part of the Mountain Planning Area.

The following are prefixes that will depict each of the planning areas in the region. These prefixes will be applied on the official General Plan maps.

Planning Areas	Prefix	Planning Area	Prefix
Big Bear Lake (City) sphere	BB	Lake Arrowhead	LA
Bear Valley	BV	Lytle Creek	LC
Crest Forest	CF	Other areas in the Mountain subregion that are not within any of the Planning Areas listed above	MT
Hilltop	HT		

Mountain Goals

The following goals, which apply to the Mountain region, are also listed as Open Space goals in the Open Space Element of the General Plan.

- Help protect the alpine character and environment.
- Protect the forest watersheds.
- Minimize soil erosion through control of flooding and sedimentation.
- Protect the slopes.

Mountain Policies/Actions

Man-made Resources

Wastewater Systems

- Coordinate with Mountain wastewater and water agencies in establishing programs designed to use reclaimed wastewater from Mountain sewage systems to recharge the local groundwater basins and to fertilize timber production areas when consistent with County public health and environmental standards.

Transportation/Circulation

- Require all private roads to be maintained by a property owners association. This may include keeping the roadways passable through maintenance, snow removal and enforcement of the no parking within minimum access roadway.
- Protect rights-of-way and limit access by carefully locating driveways, intersecting streets, providing adequate turning movement, storage areas, and applying current state-of-the-art traffic engineering to fully utilize the limited vehicular design capacity of mountain roads.
- Adopt off-street parking requirements to protect roadways for traffic circulation and emergency equipment in all seasons; encourage the formation of cooperative organizations or tax districts to acquire and develop off-street parking areas within exiting developed urban centers.
- Pave roads adjacent to the nearest County maintained road, where practical and cost-effective.
- Give special attention to an adequate system of roads which would provide quick access in the event of fire emergencies.

- The following roads and highways are designated potential evacuation routes:
  - State Highways 2, 18, 38, 138, 173, and 330, and Mount Baldy Road.

Energy/Telecommunications

Because information on energy resources locations, potential energy content, and cost-benefit analyzes is limited, research studies shall be completed for the Mountains. These studies shall be funded by grants from the California Energy Commission or other sources and shall be conducted by planning staff, private consultants, or a county energy research, planning, and development team. Valuable resource locations which contain fossil fuels, hydropower, geothermal, wind, or high solar insolation values shall be mapped and protected from incompatible land uses.

- As consistent with Air Quality Standards, meet part of the energy need of Mountain area residents and visitors through local timber production. Encourage the National Forest Service to sell "weed" trees as fuel to residents of the region.

Housing/Demographics

- The following methods of housing development and design shall be encouraged in the Mountain areas:
  - Clustered development and attached units.
  - Planned Development projects.
  - Shared senior housing and group care homes.
- Encourage the application of the Housing Incentive Programs to cluster development (single and multiple family), in the Mountain areas.
- In the Mountain areas, the following criteria for multiple family residential units developed under the Housing Incentive Program shall be utilized:
  - In close proximity to commercial uses.
  - Adjacent to a Mountain secondary or greater width roadway.
  - Where adequate circulation exists to accommodate the increased traffic as verified by the traffic division.
  - Located where services (particularly water and sewer) are available or assured as confirmed by the respective purveyor.

- Located where average slopes are flat to gently sloping (0-15% slope).
- Located where compliance with fire safety standards are met.

- Study the options of infrastructure development in order to optimize efficient land use and the maintenance of environmental quality to achieve a more logical and efficient use of available resources in the Mountain areas.

Land Use/Growth Management

- Designate appropriate densities on the General Plan in areas that are appropriate for residential development but do not have adequate services at present. In the interim, allow only low density uses. A more appropriate district that conforms to the General Plan density designation could be approved when the services (access, fire protection, sewer capacity and lines, water services, etc.) are available.

- Assign General Plan Land Use Districts on the basis of slope and the carrying capacity of the existing infrastructure.

- The density and character of development shall not detract from the beauty, character and quality of the residential alpine environment.

- Because the scarcity of water and arable lands and the short growing season make agricultural uses in the Mountain region impractical, and because these uses can damage other desired attributes in the Mountain area, the County shall discourage agricultural land uses from locating in the Mountain region.

- The County shall regulate the density and configuration of residential development along the shore of all mountain lakes in order to protect their scenic qualities.

- Encourage the use of the Planned Development concept in environmentally sensitive areas that have been assigned residential land use category.

- Utilize construction techniques for single family homes which will preserve the forest character of the community by minimizing disruption of land and vegetation during construction.

- Monitor, as part of the review of new subdivisions and housing project, as well as through the Plan Review process, the availability and adequacy of public services.

- Through the development review process, permit new development only when new public services required to safely provide for the development are existing or assured.

- Require discretionary review of all subdivisions, land divisions, and large scale housing projects.

- Require Conditional Use Permits or other discretionary reviews within each Land Use District for land, building and accessory use types that could have an effect on services.

- Approve Land Use District changes only when adequate services exist or are assured.

Maps III-AA through III-FF depict the planning areas within the Mountain subregion. Following are profiles of these planning areas.

Figure III-23
Summary of Big Bear Lake Planning Area

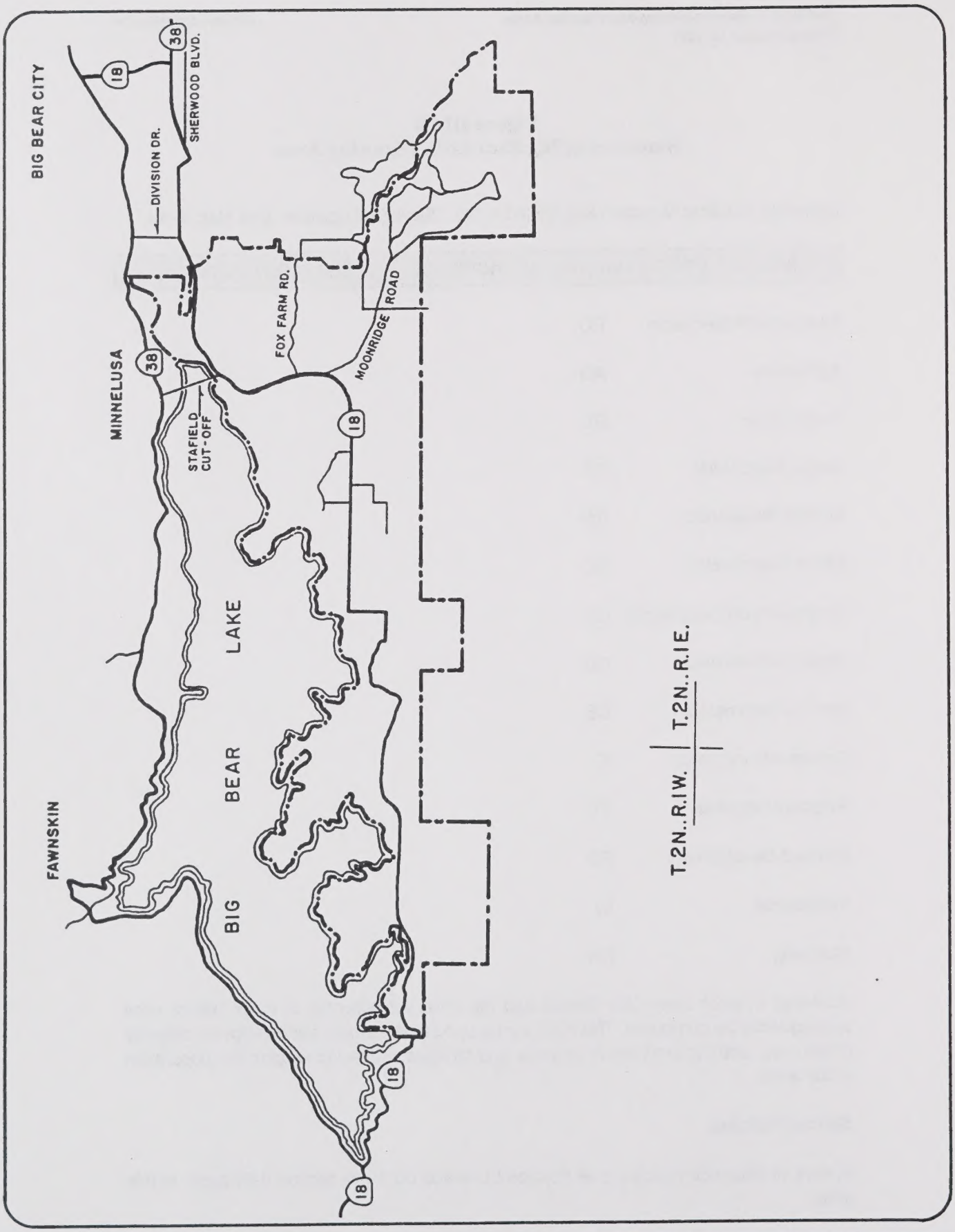
General Location: Mountain Region (RSA 30) **Specific Location**: See Map III-AA

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
BIG BEAR LAKE SPHERE OF INFLUENCE

NORTH
MAP III-AA

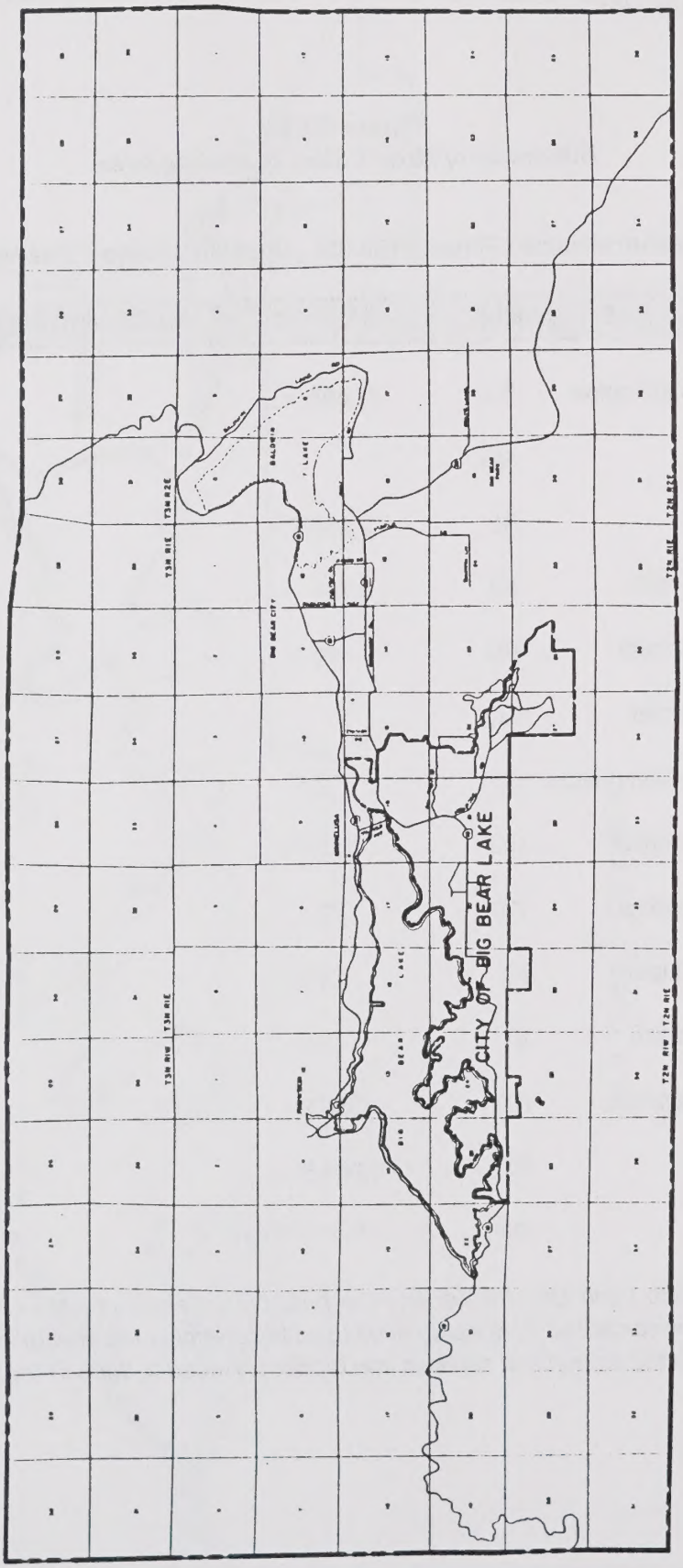
SCALE-MILES
0 1/2 1 2

Figure III-24
Summary of Bear Valley Planning Area

General Location: Mountain Region (RSA 30) **Specific Location**: See Map III-BB

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	74,508.1	
Agriculture	AG		
Rural Living	RL	2,963.5	
Single Residential	RS	5,703	
Multiple Residential	RM	80.3	
Office Commercial	CO		
Neighborhood Commercial	CN	12.6	
General Commercial	CG	150.7	
Service Commercial	CS	70.1	
Community Industrial	IC	24.9	
Regional Industrial	IR		
Planned Development	PD	352.2	
Institutional	IN	3,984.5	
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
BEAR VALLEY COMMUNITY PLAN PORTION

NORTH
MAP III-B B

MILE .5 1 2
SCALE

Bear Valley Policies/Actions

Natural Hazards

Flood

- Encourage expansion or development of fuel breaks adjacent to residential populated areas within the Big Bear Valley in a manner consistent with the intent of the General Plan.

- Apply the Floodway District, and the Flood Plain Overlay District, as appropriate, and establish community standards to increase flood safety and protection through design, development and construction standards, in compliance with County Flood Control District, the Federal Flood Insurance Administration and the US Army Corps of Engineers authority.

- Alterations to structures, facilities or any sites located within the FW District and/or Flood Plain Overlay District(s), including, but not limited to, dredging, filling, grading, placement of rip-rap or concrete must meet the requirements specified by the appropriate authority, i.e., Big Bear Municipal Water District (shoreline alteration), California Department of Fish & Game (1603 permit), US Army Corps of Engineers (wetlands of the U.S./404 permit).

- Flood Control and/or protection improvements will be designed and constructed in a manner consistent with the County's established standards.

Man-made Hazards

Noise

- Encourage and support strict enforcement to limit vehicular noise within the Big Bear Valley.

- Encourage responsible agencies to post signs near forest access roads which explain the acceptable vehicular noise levels for vehicles using those roads.

- Minimize noise impacts from aircraft using the Big Bear airport.

- Work with the airport commission to control low flying aircraft within the Big Bear Valley area.

- Support development and implementation of a noise abatement plan for the Big Bear City Airport.

Aviation Safety

- Work with the Big Bear Airport to monitor aircraft activities over the North Shore Elementary and Big Bear High Schools. Should the flight path modification requested by airport management fail to result in significant reduction in overflights of the schools, more stringent sanctions and enforcement procedures shall be implemented in cooperation with appropriate regulatory agencies.

- Support the Airport District to acquire the Big Bear City Park.

Natural Resources

Biological

- Designate and protect unique habitats supporting rare and endangered species.

- Adopt a Biotic Resources overlay, and utilize the "Sensitive Biota Resources Management Plan" and related "target areas" as community (conservation) standards.

- Utilize the Forest Conservation Community Standards to distinguish between eagle perch trees and hazard trees relative to permitted removal.

- Allow no more than 2 du/gross acre in "key" eagle habitats, and up to 4 du/gross acre in "occupied" and "potential" eagle habitats.

Cultural/Paleontological

- Identify and protect significant cultural resources from damage or destruction.

- Inventory Cultural Resources; inputs from the local historical society and committees should be encouraged.

- Utilize the Historical/Archeological overlay in developing land use designations and the formulation and evaluation of plan amendments and development proposals.

- Establish economic incentives for resource protection through the development of cultural property contracts between the County and private landowners to provide tax relief.

- Establish funding mechanisms for historic preservation and conservation through State and Federal grant programs and private trusts.

- Encourage cooperation of public agencies with land use plan authority or charged with the responsibility to protect cultural resources, and private conservation organizations, toward development of regional protection plans (land exchanges, mitigation banks).

- Develop interpretive and educational values of cultural resources.

- Encourage educational institutions and research facilities to develop educational and interpretive programs.

- Establish funding mechanisms for research through State and Federal and private grant programs, and data recovery and analysis programs associated with development projects.

Air Quality

Cumulative emissions from wood-burning fireplaces generate particulate and nitrogen and sulfur dioxide pollutants in excess of allowable air quality criteria, resulting in health-related and air-quality degradation. There is a need to reduce pollutant emissions from wood-burning fireplaces.

- Regulate emissions from woodburning fireplaces.

- Equip all woodburning fireplaces in new construction with catalytic reduction equipment.

- Limit the number of fireplaces allowed in large developments.

Water

Based upon previous study reports, present groundwater production is at or exceeds the sustained yield in the Bear Valley and projected production quantities far exceed the sustained yield of the basin. It is imperative that prudent management of existing groundwater resources be practiced and plans developed to ensure an adequate quantity and quality of water is available to meet the long-term domestic water supply needs of the valley.

In addition to water quantity and quality, institutional concerns as they relate to water supply must be given consideration with respect to future growth in the planning area. Utility infrastructures must be carefully planned and designed to ensure that facilities are available which are capable of adequately serving both existing and proposed development.

- Consider the availability of adequate water supplies and quality for existing and projected peak-load domestic needs and fire protection purposes, as well as that necessary to sustain wildlife population.

- Ensure that adequate facilities and supplies are available or assured which are capable of serving both existing and proposed development needs.

  - For the purposes of this section, as well as Section BV2.0201(c) and (d), "assured" water supplies shall mean "an adopted plan containing an implementation program and schedule including a time-table for the availability and quantity of service, a financing mechanism and technical means of delivering adequate quality of domestic water to a water purveyor, or, a substantial net, assured water supply benefit, providing one and one-half (1 1/2) the projects' forecasted net water consumption of supplemental water to a water purveyor; and, a letter from the Public Water Supply Branch, State Health Department, stating they have reviewed said plan or supplemental water sources and concur that additional supplies of adequate quality and quantity of water are available to meet Health and Safety Code requirements."

  - Examples of a net, beneficial supplemental water supply may include, but are not limited to: a new well of potable quality developed in an undeveloped or under-developed groundwater subbasin; installation or improvement of needed water infrastructure facilities, such as storage or reduction of unaccounted-for water-losses; construct groundwater recharge facilities; acquire shares in Bear Valley Mutual Water Company and deliver to water purveyor; purchase and deduction or merger of existing substandard lots such that they are no longer potential water consuming parcels, among others.

- Work with local water purveyors and responsible agencies in developing new water sources and programs.

- Support conjunctive use (operating water resources under a common management) of the area's water supplies.

- Support and apply water conservation and reuse measures through the development review process.

- Support programs to use reclaimed water from mountain sewage systems to augment local water supplies when such reclamation is consistent with public health and environmental standards.

- Regulate the extent and amount of impervious surfaces coverage.

- If a subdivision development funds assured water supplies, there is no need for future individual homes built within that subdivision to make a contribution.

Open Space/Recreation/Scenic

- Because the Mountain region contains special issues and opportunities, as well as significant open space resources, the following directed policies shall apply:

  - In the Mountain region, the County shall utilize setbacks, building coverage, the Planned Development concepts and other measures to protect the forest environment.

  - The County shall encourage the use of the Planned Development concept in environmentally sensitive areas that have been assigned residential land use category.

  - The County shall encourage conservation and sound management of the mountain forest character and natural resources, including water, streams, vegetation, soils and wildlife.

  - The County shall seek to ensure that lands within the National Forest which are proposed to be transferred from federal ownership be either retained by the U.S. Forest Service or otherwise preserved as permanent, public open space by the County or other public agencies.

- To facilitate the identification of special conditions and opportunities which require specific policy direction, the County shall cooperate with the City of Big Bear Lake, Bear Valley Recreation and Park District, and the U.S. Forest Service in the development of bicycle routes in the Big Bear Valley; and to develop a Bike Route Master Plan by 1995.

- Where feasible, establish a system of bicycle routes connecting major activity centers.

- Develop a system of bicycle routes to link new and existing residential areas with major activity and commercial centers.

- Encourage the addition of bicycle routes whenever existing highways are widened or significant length of highways are improved.

- Where appropriate, require pedestrian walkways in commercial, industrial, and major multiple family residential developments.

- Provide handicap ramps in new commercial developments, and in existing commercial areas where practical.

- Provide pedestrian linkages between adjacent commercial areas, and adjoining residential areas, to encourage foot traffic and reduce automobile trips.

- Where desired by the local community, establish a system of equestrian trails and facilities, where appropriate in individual neighborhoods.

- Where feasible, link local equestrian trail and hiking paths with other regional trails or routes.

- Reduce the amount of automobile trips on local roadways.

- Adopt and enforce tree protection and forest conservation provisions and standards as listed in the Development Code.

- Distinguish between "hazard class" trees and eagle perch and roost trees.

- Where the natural undeveloped condition of the site consists of dirt or grasses, require revegetation with either indigenous native plants or those compatible with the climate and soil characteristics of the Bear Valley Communities.

- Parking credit reductions from the required parking may be allowed for proposed parking spaces containing healthy and vigorous native specimen trees, when consistent with the standards specified in the County Development Code.

- Through the development review process, require replanting of ground cover in denuded areas with vegetation, either indigenous to the area or compatible with the climate and soil characteristics of the Bear Valley Communities.

- When feasible, require developers through the development review process to substantially maintain existing percolation and surface water runoff on site.

- Implement a soil erosion control program as part of a community development standard.

Soils/Agriculture

- Review all Forest Service Plans and special use permits within or affecting the Plan Area to ensure compliance and consistency with this General Plan and other County regulations.

Man-made Resources

Wastewater Systems

- Alternating primary and secondary leachfields shall be installed in order to alleviate potential health and water quality problems resulting from failing leachfields to which repair equipment has no access, or where the leachfield-area slope is 30% or greater.

Solid Waste Management

- Develop an efficient and economical solid waste collection, reclamation and disposal system to serve the Bear Valley communities.

- Locate, design and operate solid waste collection and disposal facilities to minimize adverse impacts on surrounding natural environments and local communities.

- Manage operational procedures to improve and take precautionary measures against groundwater and surface water pollution from the local solid waste disposal site.

- Promote the recovery and recycling of usable materials from solid waste.

- Coordinate and cooperate with responsible and affected agencies and the local communities, in developing a long-range solution to solid waste collection and disposal in Bear Valley.

- Seek to exchange County lands for the Mt. Doble sanitary landfill site with the U.S. Forest Service.

Transportation/Circulation

- Support the development of park and ride transit service between San Bernardino, Victorville and the Big Bear Valley.

- When population and residential densities permit or warrant, develop shuttle services from residential neighborhoods to recreational areas and major commercial centers.

- Support improvement and utilization of the Big Bear City Airport, in a manner consistent with public health and safety consideration, and sound land-use planning and development.

- Designate the following roadways as Mountain Collectors:

  - Woodland Drive
  - Hatchery Drive
  - Willow Lane south of State Lane
  - Maple Lane south of Barton Lane
  - Barton Lane west of Maple Lane
  - Sawmill Drive
  - Shore Drive
  - Maltby Boulevard

- Aeroplane Lane/Valley Blvd./Country Club Blvd. between Division Drive and Paradise Way
- Sherwood Blvd. between Division Drive and Pineview Drive
- Mojave Blvd. between SR 18 and Paradise Way

- Through the Conditional Use Permit process, minimize the number of driveways accessing State and County maintained roads and require shared driveways on adjacent properties.

- Require two points of access on subdivisions.

- All new subdivisions and discretionary approvals shall have roads paved to County standards with assured provisions for road maintenance and snow plowing.

- A detailed analysis shall be made to determine additional right-of-way and roadway widths that may be required to provide additional intersection capacity with any development on Big Bear Blvd. (SR 18 and 38) within 300 feet of the following intersections:

  - Division Drive
  - Hillendale Drive
  - Aeroplane Blvd.
  - Pinon Drive
  - Greenway Drive
  - Paradise Way
  - Shore Drive
  - Maple Lane
  - Shay Road
  - Big Tree
  - Baldwin Lane at SR 38
  - State Lane/Mitchell at SR 38

- Investigate and pursue realignment alternatives for Big Bear Blvd. between Pineview Drive and Aeroplane Drive (ie., "Deadman's Curve").

- Circulation on Big Bear Boulevard (SR 18 and 38), between the easterly boundary of the City of Big Bear Lake and Greenspot Boulevard, shall be improved and implemented according to the following objectives:

  - Require dedications for an ultimate 80 ft. wide roadway as entitlement are given, and establish corresponding building setbacks and standard county road improvement participation agreements.

  - Defer full improvements (4 travel lanes, curbs, gutter, paving) until traffic volumes approach Level of Service "C" during afternoon peak hours, after the following interim improvements have been installed.

- Until such time as full-width improvements are necessary, make other interim traffic management improvements including, but not limited to signalization of key intersections as traffic warrants indicate (Division Drive, Hillendale Drive, Pinon Drive, Big Tree Drive, Paradise Way, Shore Drive, Greenspot Road).

- Terminate nonessential intersecting streets and utilize abandoned right-of-ways for parking, open space/mini-parks, bus bays, and the like, or vacate.

- Utilize adjacent, parallel streets as outer highways/frontage roads (Sherwood/Mojave and Aeroplane/Country Club) to provide alternative route and controlled access to Big Bear Blvd.

- Require 30 ft. half width dedication along commercial frontage of the streets specified above.

- Require 20 ft. 1/2 width dedication along residential frontage of streets specified above.

- Provide 40 feet paving width for the streets specified above.

- Seek Federal Aide Highway, and State funds, to finance or augment improvements cited above; or to off-set and reduce transportation fee.

- Pursue the extension and improvement of Fox Farm Road from McAlister east to Sugarloaf (Baldwin Lane) and tie into Highway 38, as an alternate route.

- Proposed as 80 ft. right-of-way with 4 travel lanes (Mountain Major highway).

- Connecting streets proposed for connecting to Fox Farm Road extension: Sugarpine, Hillendale, Woodbridge, Pinon Hills, Sugarloaf or Rainbow, Adams/Shore.

• Cooperate with the City of Big Bear Lake and Cal Trans to develop a phased, coordinated and interconnected signal system along Big Bear Blvd. from Pine Knot through the City and from Division Road to Route 38 (Shay Rd./Greenspot Blvd.) in Big Bear City.

• Require road improvements as follows:

  - Require all private roads to be maintained by a property owners association that has the ability to keep the roadways passable through maintenance, snow removal and enforcement of illegal parking within minimum access roadways.

- Development of Big Bear Boulevard to 4 lane standards to be in accordance with standard county practice with all development required to dedicate master plan right-of-way, and all development other than individual small lots be required to construct master plan improvements. Deferral agreements for road improvements, as determined by Land Management to be obtained on small lot development.

- Through land use controls, minimize the impact of development on the carrying capacity of the road system.

  - Minimize densities allowed within the Planning Area to that which is more compatible with the carrying capacity of the road system. This shall be accomplished by designating large blocks of vacant land in steep slope areas for 1 dwelling unit per acre to 1 dwelling unit per 5 acres or larger parcel size when appropriate.

- Require two off-street parking spaces on the same site with the main building for each residential dwelling unit. Said parking spaces shall be provided prior to construction. Driveways shall be designed to minimize grade so that year round access is assured and on-street parking is avoided. For new residential subdivisions and multi-family developments, there must be direct access to a County or State-maintained paved road and driveways shall not exceed a fourteen (14%) percent grade.

- On any commercial development that attracts daily traffic, require exclusive left turn lanes, and other improvements as necessary, to allow uninterrupted traffic movement.

- On all major commercial developments, require eighty (80) foot roadways.

- In recognition of the possible need to restrict left hand turns at certain locations along Highway 18 as part of an overall transportation management strategy, the County shall initially consider the installation of left hand turn pockets where unacceptable queuing interferes with traffic flow. If this proves infeasible, the County will coordinate with Caltrans to impose left hand turn restrictions as required to maintain acceptable traffic flow during periods when queuing is a problem.

- In recognition of the potential need to control parking at certain locations along Highways 18 and 38, as part of an overall transportation management strategy, the County shall coordinate parking controls with Caltrans as future traffic flow requirements along these roads dictate.

Energy/Telecommunications

- Require the planting of native or drought-tolerant cultivar species, capable of surviving the mountain environment and climate.

- Through the development process, encourage building orientations conducive to utilizing available solar energy resources.

- Encourage use of solar energy systems for residential uses.

- Ensure that the design of subdivisions provide future passive or natural heating opportunities; including design of lot size and configuration to permit orientation of a structure in an east-west alignment for southern exposure.

Land Use/Growth Management

- Residential developments in hillside areas shall conform to the density criteria set forth in the Development Code, and the development standards of the Hillside Development Overlay District.

- Develop special development and community standards for hillside developments to address allowable cut and fill heights and horizontal runs, soil and slope stability, grading and blending of contours, structural relationships, building foundations, and the like.

- Regulate the density of development in sloping hillside areas in order to reduce fire hazards, prevent erosion, and to preserve existing vegetation and visual quality, in accordance with the following criteria: 0-4 dwelling units per gross acre on slopes of 0-15%, 2 du's per gross acre on slopes of 15-30%, 1 du per gross acre on slopes of 30-40%, and 1 du per 3 gross acres on slopes greater than 40% gradient.

- Utilize the Preservation-Hillside Development overlay in hillside areas with moderate to steep slope gradients, i.e., where the average natural slope is 30% or greater.

- The density for properties designated RM and generally located along Greenway Dr. between Meadow Lane and North Shore Dr., and along North Shore Dr. between Sierra Ave. and Myrtle Ave., will be 12 du/acre for a minimum one (1) acre or larger parcel size; density not to exceed 8 du/acre on parcel sizes from 7,200 sq. ft. up to one acre; density not to exceed 6 du/acre on parcels less than 7,200 sq. ft. in area.

- All multiple family building types of more than three units must be two-story to minimize building footprint area and to conserve the forest character.

- Require residential building foundations to conform to natural slope (custom foundations) where the natural slope exceeds 15 percent.

- Defer the creation of new subdivisions and encourage in-fill development on existing, vacant lots where the full range of urban facilities and services is available, until such time as the water overdraft deficit is resolved, and

adequate water supplies are either existing or are assured to be available to meet the peak load domestic and fire flow needs of the subdivision at the time of development.

- At such time as adequate peak load water supplies are existing or assured, encourage in-fill development of larger parcels of land in close proximity to existing communities where further urban growth is a reasonable and logical extension of the current land use pattern; and which require only minor extension (not to exceed 1/4 mile) of available public facilities and services.

- Limit the number of animals that could cause erosion problems.

- In the BV/RL (Rural Living) District, limit the number and types of animals to Resource Production and Extraction, Animal Raising (Special) and limit accessory animals to Domestic and Farm (Limited II), Horse Raising, and Educational Animal Projects.

- All development standards for small lots specified in the Development Code shall be fulfilled prior to any new construction.

- Establish and implement minimum interim development standards necessary to meet health and safety criteria for fire safety, water supply and quality, sewage disposal, building and access, until adequate financial worth is accumulated to provide urban-level public services and facilities.

- Allow no more than a maximum of 344 dwelling units in the affected area(s) before reconsideration of establishing an assessment district or other mechanism to finance the required urban-level public services and facilities (i.e. water supply, sewers, fire flow, storage and distribution, and all-weather access).

- Further development which exceeds a maximum of 344 dwelling units will not be allowed until an assessment district, improvement zone or other mechanism, and financing measures are established.

- Encourage the merger of sub-standard commercial lots into parcel sizes of at least 5,000 sq. ft. in area.

- Encourage the continuing development of the existing marinas and boat landings when this is in the most environmentally sound manner possible.

- Provide for the necessary appurtenant uses of fueling, servicing boats and motors, and sale and rental of marina and fishing supplies, storage and necessary related accessory facilities.

- The marina symbol designation shall be considered consistent with the Commercial map category.

- Designate the following marinas and boat landings with the Marina symbol: Gray's Landing, Leonard's Landing, Duane R. Boyer Public Boat Launch, Cluster Pines Campground, the Lighthouse RV Park and Campground, Big Bear North, North Shore Public Boat Launch, and Juniper Point, and Dana Point Park.

- Establish local design standards which provide for an historic, rustic western architectural theme for the commercial area of Fawnskin.

- Prepare a design manual to provide acceptable rustic western theme standards, including materials, colors, and architectural styles and treatments.

- Industrial lands shall be located in areas where industrial uses will best serve the needs of the community and will have a minimum adverse effect upon surrounding property with minimal disturbance to the mountain environment and the total community.

- Permit, in the BV/IC District, only those uses in the Community Industrial District that generally meet the service, employment and support needs of the Bear Valley Communities, including limited export of manufactured goods. These uses shall not adversely impact the mountain environment.

- Only permit in the BV/IC District those industrial uses that can adequately control all sources of pollution including noise, water and air quality concerns.

- The boundaries shown as following or approximately following shorelines of any lake shall be construed to follow the mean high water line of such lake, and in the event of change in the mean high water line, shall be constructed as moving with the actual mean high water line where fill rights have been granted and an appropriate environmental review completed and Conditional Use Permit granted for such area of fill.

Figure III-25
Summary of Crest Forest Planning Area

General Location: Mountain Region (30) **Specific Location**: See Map III-CC

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	5,282.6	
Agriculture	AG		
Rural Living	RL	2,583.7	
Single Residential	RS	3,074.1	
Multiple Residential	RM	60.6	
Office Commercial	CO	15.7	
Neighborhood Commercial	CN	5.6	
General Commercial	CG	78.4	
Service Commercial	CS	17.9	
Community Industrial	IC	4.1	
Regional Industrial	IR		
Planned Development	PD	274.9	
Institutional	IN	100.2	
Floodway	FW	94.2	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

SAN BERNARDINO COUNTY GENERAL PLAN
CREST FOREST COMMUNIT PLAN PORTION

NORTH
MAP III-CC

MILE 0.5 1
SCALE

Crest Forest Policies/Actions

Man-made Resources

Land Use/Growth Management

- Limit the installation of mobilehomes to those areas where:
  - The siting techniques that are required to install mobilehomes will not damage the environment more than the construction of conventional dwellings including, but not limited to, tree removal, site preparation, foundation construction and the placement of the mobilehome on the foundation. Items such as potential for increased grading and tree removal necessary to move these homes onto permanent foundations shall be considered.
  - There is adequate access to transport the mobilehome(s) to the site(s).
  - The use of mobilehomes will be compatible with the built environment.
- General commercial and service commercial areas should be permitted only on flat to gently sloping land (0-15% slope prior to grading) to provide adequate area for parking and traffic.
- Require mountain type landscaping for all commercial areas through the Conditional Use Permit (CUP) process.
- Limit the number and size of signs to that necessary for adequate identification of the business establishment.
- Approve additional commercially designated lands only when there is adequate access and area for parking.
- Buffer commercial uses from adjacent residential uses through transitional land uses, landscaping and design standards through the Development Review Process.
- Minimize additional strip commercial development through the application of districts.
- Only permit those light, nonpolluting industrial uses necessary to meet local needs.
- Review new industrial development to determine its compatibility and suitability with the mountain environment.
- Review new industrial uses that could have an adverse impact upon adjoining properties and the mountain environment.

- Only permit, in the CF/IC District, those uses in the Community Industrial District that meet the service and support needs of the communities.

- Only permit in the CF/IC District, those industrial uses that can adequately control pollution.

- In the Community Industrial (CF/IC) District, require Conditional Use Permit for new industrial development.

- In the Community Industrial (CF/IC) District, require Conditional Use Permit for use types that could have an adverse impact upon adjoining properties and the mountain environment.

- In the Community Industrial (CF/IC) District, Development Standards require landscaped screening.

Figure III-26
Summary of Hilltop Planning Area

General Location: Mountain Region (30) **Specific Location**: See Map III-DD

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	21,396.1	
Agriculture	AG		
Rural Living	RL	448.0	
Single Residential	RS	1,457.9	
Multiple Residential	RM	35.3	
Office Commercial	CO	28.5	
Neighborhood Commercial	CN	14.9	
General Commercial	CG	74.0	
Service Commercial	CS	7.4	
Community Industrial	IC	28.1	
Regional Industrial	IR		
Planned Development	PD	1,966.8	
Institutional	IN	70.4	
Floodway	FW	18.6	

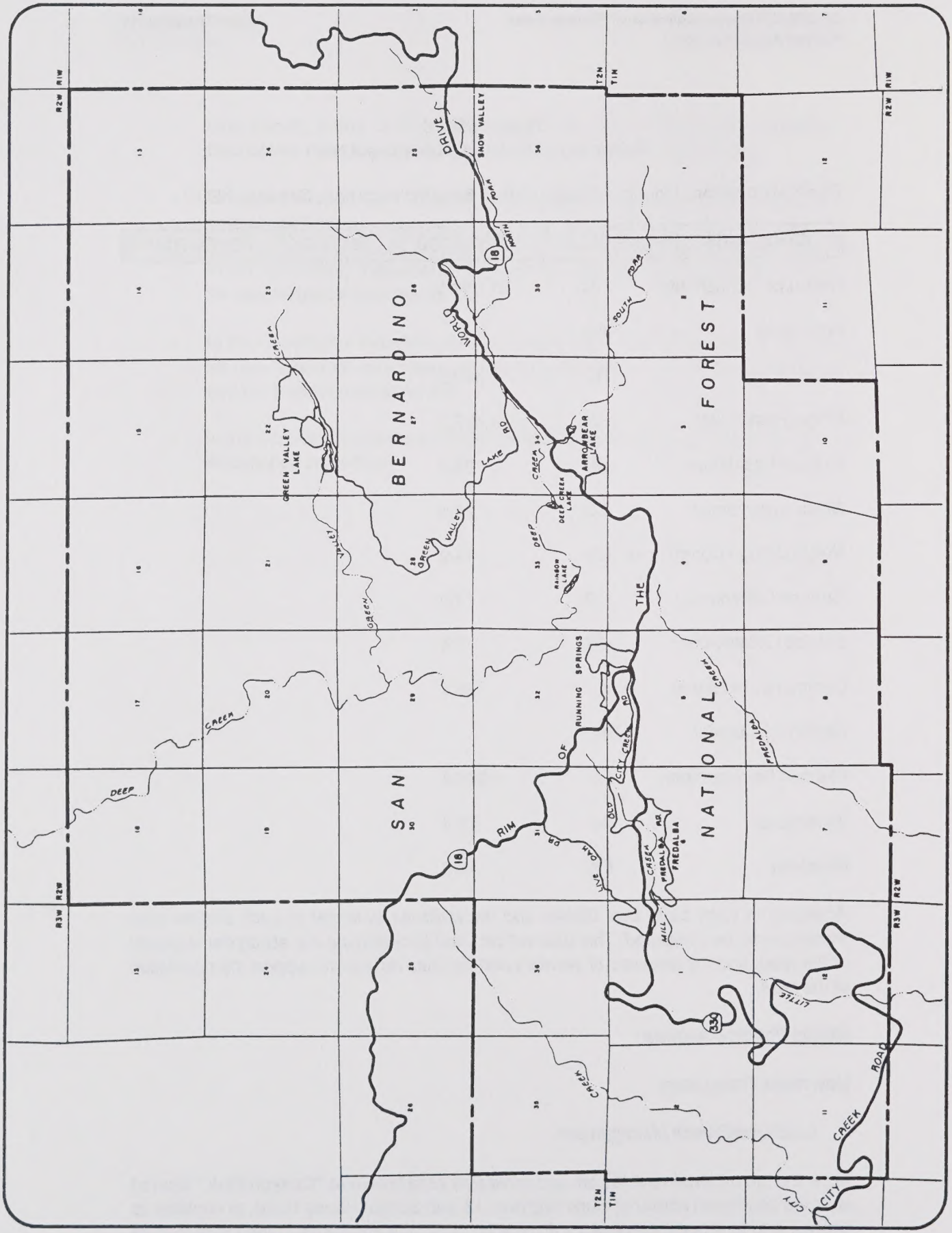
Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Hilltop Policies/Actions

Man-made Resources

Land Use/Growth Management

Allow the recreational vehicle park and snow play area known as "Canyon Park," located near the southwest corner of State Highway 18 and School House Road, to continue to operate and to request expansions as needed under the provisions of the Development Code.



SAN BERNARDINO COUNTY GENERAL PLAN

HILLTOP COMMUNITY PLAN PORTION

MAP III-DD

NORTH

0 1 2 3 4 5 FT.

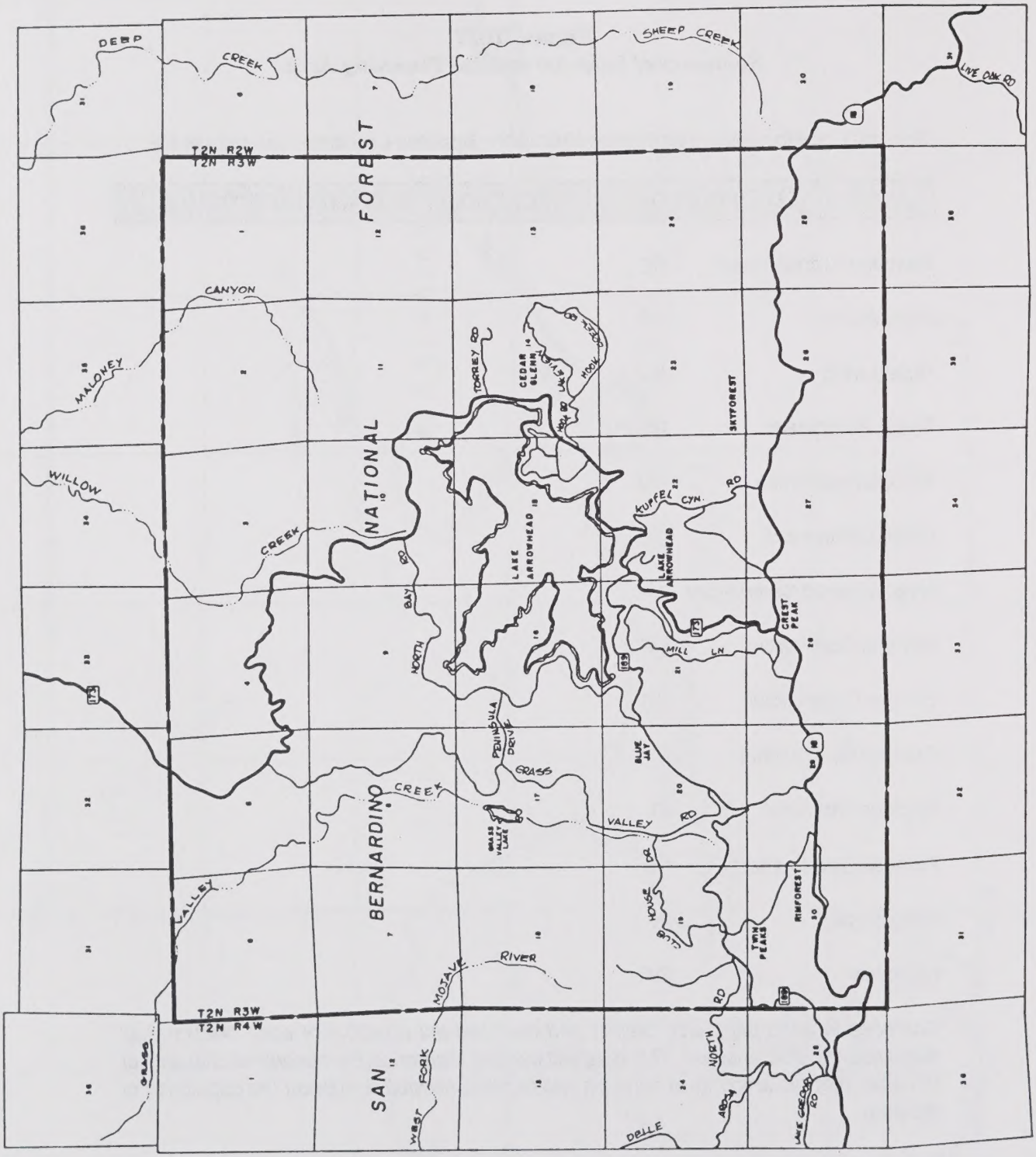
SCALE (IN THOUSANDS)

Figure III-27
Summary of Lake Arrowhead Planning Area

General Location: Mountain Region (RSA 30) **Specific Location**: See Map III-EE

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
MultipleResidential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
LAKE ARROWHEAD COMMUNITY PLAN PORTION

NORTH

MAP III-EE

MILE .5 1
SCALE

Lake Arrowhead Policies/Actions

Natural Resources

Open Space/Recreation/Scenic

- That Little Bear, Hook, Grass Valley, Willow, Sheep, Shake, Fern, Burnt Mill, Orchard and Fleming Creeks shall be protected from encroachment or development that detracts from their natural beauty.

- That the area referred to as Strawberry Peak, and designated on the Natural Resources Overlay and in the Open Space Policy Area, be preserved as open space for its high natural resource value.

Man-made Resources

Transportation/Circulation

- Complete Cumberland Road from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area.

- Monitor, through the annual review process, the status of funding for road improvements that would enable the following roads to be widened to four lanes: Daley Canyon Road, State Highway 189 from Daley Canyon Road to Grass Valley Road, State Highway 173 from State Highway 18 to Grass Valley Road on the north side of Lake Arrowhead, and State Highway 18.

- Control access onto all State highways and County mountain secondary highways, especially RM lots on North Bay Road, and south of Peninsula Drive.

- Require school bus stop shelters as needed, when road improvement or widening is required as part of an adjacent development.

Land Use/Growth Management

- Prohibit construction of new high density residential development along the shore of Lake Arrowhead and Grass Valley Lake in order to protect their scenic qualities. No additional RM Districts shall be permitted in the following areas:

  - Grass Valley Lake - between the shoreline and Golf Course Road north of Lake Arrowhead Country Club, Brentwood Drive north of Riveria Drive and Riveria Drive.

- Lake Arrowhead - generally between the shoreline and North Shore Road.

- Twin Peaks - along State Highway 189.

- Establish minimum lot size in substandard areas to be 5,000 square feet.

- Ensure that commercial recreation and tourist facilities be located, designed and controlled to protect the residential-recreation character of the area.

- New industrial uses which generate heavy truck traffic shall be allowed only on State Highway 18.

- Require that each of the large industrial properties at the northwest corner of State Highway 18 and Daley Canyon Road and along the north side of Torrey Road, east of the Mountain Communities Hospital, each be planned as a single unit.

- Concentrations of industrial development shall be located on State Highway 18.

- That existing industrial development be modified to be more compatible with surrounding land uses by encouraging the phase out of existing, incompatible industrial uses in upper Cedar Glen and Agua Fria.

- That a screening requirement be implemented to buffer existing industrial and residential areas as in Rim Forest.

- Whenever an existing industrial use expands or remodels so that building permits are required, the Department of Building and Safety shall require fencing and indigenous landscaping to be provided along all boundaries abutting onto a Residential Land Use District.

- The unique development options available in the Santa's Village area should be planned as a cohesive unit.

Figure III-28
Summary of Lytle Creek Planning Area

General Location: Mountain Region (RSA 30) **Specific Location**: See Map III-FF

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	3,158.0	
Agriculture	AG		
Rural Living	RL	486.5	
Single Residential	RS	126.3	
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN	8.2	
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN	60.6	
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

SAN BERNARDINO COUNTY GENERAL PLAN

LYTLE CREEK COMMUNITY PLAN PORTION

MAP III-FF

NORTH

0 1 2 3 4 FT.

SCALE (IN THOUSANDS)

Lytle Creek Policies/Actions

Introduction

The following influences should be recognized in determining the future development of the Lytle Creek Community:

- A limited supply of developable private land. (All privately owned land within the Plan area is surrounded by National Forest, thus making any increase in developable land highly unlikely.)
- Seismic, flood and fire hazards combined with a single access to the Lytle Creek Canyon.
- The need to preserve the natural beauty and character of the Lytle Creek Canyon.

Natural Resources

Biological

- The natural vegetation and wildlife within the Plan Area should be enhanced and preserved.
- Rare and endangered animals and plants requiring limited or specialized habitats shall be protected.
- Explore the feasibility to protect Lytle Creek Canyon Road from flood damage by road bank engineering as an alternative to stream channeling. (This will allow vegetation which formerly grew on the present barren stream banks an opportunity to return.)
- Landscaping appropriate to Lytle Creek shall be encouraged.
- Provide to the property owners, upon request, a list of plants most effective in erosion control and are fire resistant.

Open Space/Recreation/Scenic

- Suitable actions be taken to establish a scenic corridor along Lytle Creek Canyon Road and that specific steps be taken to protect the "view from the road."
- The procedure and criteria developed in the state publication "The Scenic Route" shall be used in defining the scenic corridor of Lytle Creek Canyon Road.

- Establish the following vista points using the north edge of the Lytle Creek stream crossing (locally known as "The Bridge") as the starting point for mileage figures:

  - San Sevaine Ridge - 1.0 - 4 miles/225 degrees- 315 degrees*
  - Panorama - 2.5 miles/360 degrees
  - South Fork - 3.4 miles/18O degrees - 360 degrees
  - Middle Fork - 3.6 miles/120 degrees - 360 degrees
  - Glenn Ranch - 4.9 miles/360 degrees
  - Fernbrook - 5.8 miles/360 degrees

*Note: Degrees indicate azimuth degrees.

- Through a Preservation Overlay, identify and conserve historical and archaeological points of interest: Glenn Ranch Lodge, Scotland Store, Fernbrook, site of former hot springs above U.S. Forest Service Ranger Station, route of stage or wagon to Keenbrook Railroad Station.

- Develop programs to enhance and preserve the desirable visual qualities of Lytle Creek Canyon Road.

- Establish off-street pull-outs at designated view points.

- Develop standards to screen storage and other unsightly areas (such as utility company installations) with plantings or appropriate fencing.

- Require that all permanent on-site signs conform with U.S. Forest Service type of design, material and color.

- Prohibit all off-site outdoor advertising signs.

- Support periodic community trash clean ups with "no fee" dumping days.

- Improvement and maintenance of Lytle Creek Canyon Road should be designed in accordance with current highway standards and in a manner which will enhance its use as a scenic highway.

- The creek area should be designated as a visual resource and protected from unsuitable development.

- Encourage citizens to work with the Planning Department staff to create an appropriate preservation overlay district to protect the creek area within Lytle

Creek from development which would detract from its value as a scenic resource.

- Encourage the citizens to explore the feasibility of voluntary programs which would serve to preserve the natural character and beauty of the Creek.

- Promote the use of low native stone walls, split rail fences, and similar barriers as ornamental property boundary markers or as fencing along roadsides.

- Recommend permanently maintained landscaping along road frontages where chainlink fencing is necessary for the security, protection, or confinement of children or pets.

- Require property owners along established natural or man-made watercourses be responsible for debris removal and maintenance of lined channels whenever water flows through their property.

- Support any efforts of the local community to form an action group to establish and operate a community park and recreation improvement zone that will give them the authority to acquire, develop, operate and maintain public parks, recreation areas, and cultural facilities.

- Accessibility to the community in times of emergency should be maintained by obtaining assurance from the U.S. Forest Service that they will respond to the emergency needs of vehicular travel on Applewhite Road and Sheep Creek Truck Trail Road.

- Encourage community-action groups to establish an annual community tree planting program and community trash clean up with "no fee" dumping days.

- Explore the feasibility of forming a local parks and recreation district, or the equivalent, to accomplish the following actions:

  - Obtain funds to acquire property for construction of a baseball diamond.

  - Acquire small playgrounds for each neighborhood-Happy Jack, Frederick's Subdivision, Tally Subdivision, Scotland and Bonita areas.

  - Obtain hiking and equestrian trail easements through private property, linking the urban communities of Happy Jack, Talley, Scotland and Bonita.

  - Work with the U.S. Forest Service to ensure that any proposed commercial mining applications within the Lytle Creek Community Plan be referred to the County for their review and recommendation prior to any Federal approval.

Soils/Agriculture

- Preserve the limited areas within the Lytle Creek area that can support commercial agriculture.
- Coordinate all planning and development activities adjacent to the National Forest with the U.S. Forest Service.

Man-made Resources

Transportation/Circulation

- Control access by limiting access on Lytle Creek Canyon Road.
- Create left-turn bays entering South Fork Road, Middle Fork Road, Talley and Happy Jack subdivisions.
- Establish a 25-mile per hour speed warning on Lytle Creek Canyon road within the Scotland area.
- Encourage the formation of cooperative organizations or a Community Service District to acquire and develop off-site parking in areas of congestion. Give the Scotland area a priority for such action.
- Prohibit on-street parking where it reduces highway design capacity.
- Maintain Lytle Creek Canyon Road as a Mountain Secondary Highway.
- Support the inclusion of Sheep Creek Truck Road/Swarthout Canyon Road from Lytle Creek Canyon Road to Lone Pine Canyon Road for the 1981 Forest Highway Program which can serve as an emergency access route.
- Designate the Lytle Creek Community Center parking lot, the Scotland Store parking lot, and the former Scotland parking lot as helicopter emergency landing pads. Support the location of a suitable emergency landing pad in Happy Jack as soon as possible.
- Obtain approval of U.S. Forest Service for location and construction of trails through National Forest Lands.
- In the Lytle Creek community area, the Sheep Creek Truck Road/Swarthout Canyon Road from Lytle Creek Canyon Road to Lone Pine Canyon Road is designated an emergency access road. Other emergency access roads may be added as appropriate.

Housing/Demographics

- Existing homes which do not conform to building code standards should be brought into conformance as soon as is practicable without infringing upon the rights of individual homeowners.

- An informational program should be established that will assist local homeowners in identifying existing safety hazards within their homes.

- Encourage local citizens to meet with officials of the Department of Building and Safety and/or the Office of Community Development to determine what means are available to assess the safety and structural soundness of existing housing that does not meet current building code requirements.

- New housing within the Lytle Creek community should be reviewed to determine its compatibility with the community and the environment.

- Creative design and construction of affordable energy efficient housing shall be encouraged for new structures and to upgrade existing structures.

Land Use/Growth Management

- Adopt a schedule for the systematic undergrounding of existing utilities in accordance with the rules, regulations and tariffs on file with the California Public Utilities Commission.

- All open, permitted household storage activities, including equipment, shall be limited to the back of the lot in all residential land use districts.

- Private lands, because of topography or location within a safety hazard zone, shall be given the opportunity to develop as recreational property, i.e., campgrounds and recreational vehicle parks, and/or large lot residential properties of a rural nature.

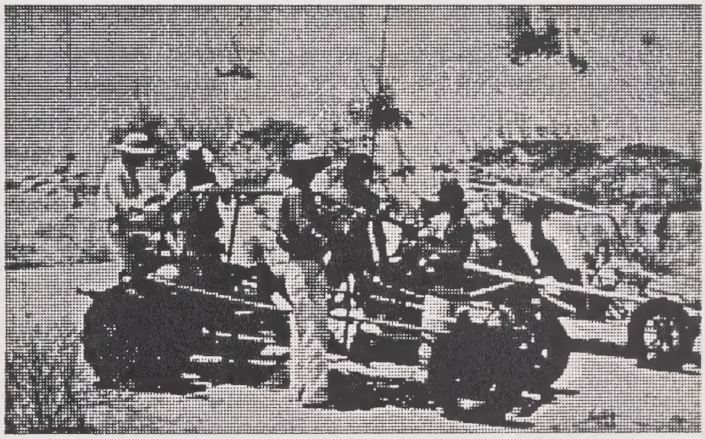
- Establish community standards for screening between commercial and residential land uses that emphasize the use of landscaping and berms rather than artificial screening.

- The commercial center for the community is to be developed on Lytle Creek Road between Middle Fork Road and Maxwell Road expanding the commercial nucleus that presently exists and establishing another area south of Valley Vista Dr. along Lytle Creek Canyon Road (see Land Use District Map for locations).

D. DESERT REGION

The Desert region is the largest of the three regions. This region includes a significant portion of the Mojave Desert and contains about 95% (19,236 square miles) of the land within San Bernardino County. The Desert is an assemblage of mountain ranges interspersed with long, broad valleys that often contain dry lakes. Many of these mountains rise from 1,000 to 4,000 feet above the valleys. Due to the persistent winds that blow throughout the year, large portions of the Desert surface have been modified into a mosaic of pebbles and stones known as desert pavement. A major physical resource of the Desert is the Mojave River, a critical water source for many of its residents. Among the few rivers that both flow north and do not empty into an ocean, the Mojave River travels north and east away from its watershed in the San Bernardino Mountains. The major part of its over 100-mile length is marked by a dry river bed that only on occasion reveals the water within it. Except in exceedingly wet years, the Mojave River ends its flow at Soda Dry Lake near Baker. The Desert region is defined as including all of the unincorporated area of San Bernardino County lying north and east of the mountain area as herein defined.

Winter temperatures in some areas of the Desert range near zero, the cold oftentimes compounded by the windchill factor. In the summer, temperatures can reach as high as 120°F. in the lower elevations. The great valleys between mountain ranges experience very high temperatures, while the adjacent mountains often experience much cooler temperatures, particularly at their summits. Rainfall and humidity are low. With the possible exception of some of the higher elevations in the mountains, precipitation throughout the Desert is less than four inches per year, usually of short duration and high intensity. The resulting flash floods rapidly modify the terrain that is exposed to the erosive surface runoff. Unusually heavy or persistent rains have caused the temporary filling of a number of dry lakes until the surface water evaporates or infiltrates the soil.



The desert is widely used as a recreation area including off-road vehicles; Needles

The sparse vegetation in the Desert is represented by brush and scrub of the Sage and Creosote types and woodlands of Pinon-Juniper and Joshua Trees. In some of the more remote ranges in the eastern Mojave, Pine Forest remnants of the ancient Pleistocene Age are found.

Since 1975, the Desert Region has been experiencing a rapid rate of development. The deterioration of air quality in the basin, congestion and skyrocketing land costs in the coastal portion of Southern California is making the Desert a more attractive place to live and work. In recent years, a great percentage of retirement age people have moved to

the Desert, attracted by its relatively clean air, natural beauty and lower cost of living. About one-fourth of the growth experienced was in the incorporated cities of Adelanto, Apple Valley, Barstow, Hesperia, Needles, Twentynine Palms and Victorville. The remaining three-fourths of the growth occurred in the unincorporated desert areas primarily along major highway transportation routes, the Colorado River and in special "retirement communities."

Because of the Desert's openness and natural environment, the region has become an important recreation and economic resource for the County, Southern California and the State. Recreation and scenic areas include Death Valley, Joshua Tree National Monument, the restored ghost town of Calico, as well as much of the desert itself. Recreation opportunities (primarily off-road vehicle activities and camping) draw many visitors whose spending helps the economy, although often causing negative impacts to the environment. Interstate and regional railroads and highways are the major generators of new dollars. Industry is finding that the confluence of these transportation facilities in the Desert make it a superior distribution center to serve the Southern California market, as well as much of the State. Refined limestone, saline compounds and certain rare earth minerals are also of economic importance, while beef, milk, feed, eggs and poultry are significant agricultural products.

Defense training and testing is another type of activity which aids the desert economy. George Air Force Base near Adelanto and Victorville, Fort Irwin (proposed as the U.S. Army National Training Center) the Marine Corps Supply and Logistics Center near Barstow and the Marine Corps Air-Ground Combat Center at Twentynine Palms are the principle military reservations in this region. Goldstone Deep Space Tracking Station and other NASA installations are also located near Barstow.

Because of the enormous size of the Desert region, the region is divided into five subregional planning areas. These are Baker, Barstow, Victorville, Twentynine Palms and Lower Colorado River. The boundaries of these subregional planning areas are coterminous with the boundaries of the five Regional Statistical Areas (RSAs) for the Desert (RSAs 31, 32A, 32B, 33 and 34).

Desert Policies/Actions

Natural Resources

OpenSpace/Recreation/Scenic

- Because the climate, soils and natural resources of the Desert Region impose special restrictions on the establishment of uses involving agriculture or resource extraction, the County shall implement the following policies:

  - The County shall exclude forestry uses from all land use districts in the Desert region.

  - The County shall work with the Bureau of Land Management or other appropriate agencies to ensure that any mining operations in or near

Deep Creek or other important creeks or habitat areas are designed so as to minimize damage to natural resources.

- No development of any kind, including resource extraction, shall be approved which would destroy or seriously diminish the visual quality of existing sand dunes.

- Develop private inholdings within Wilderness Study areas in the California Desert Conservation planning area only, in compliance with the stipulations of the Federal Land Management Policies Act, until Congress takes action to designate specific wilderness areas.

Areas identified by the Bureau of Land Management as being of Critical Environmental Concern include:

- Trona Pinnacles
- Grimshaw Lake
- Amargosa River
- Salt Creek (Dumont)
- Clark Mountain
- New York Mountains
- Fort Piute
- Fort Soda
- Afton Canyon
- Eriophyllum
- Harper Dry Lake
- Mojave Fishhook
- Upper Johnson
- Soggy Dry Lake
- Big Morongo Canyon

In addition, the Bureau of Land Management has also designated the East Mojave National Scenic Area as an area of special concern.

Man-made Resources

Transportation/Circulation

- Design road standards and maintain major thoroughfares to complement the surrounding environment appropriate to each geographic region.

- Establish a Modified Secondary Highway designation on freeway frontage roads along the I-15 freeway with half-widths of forty four (44) and thirty (30) feet for the following highways:

  - Mariposa Road on the east side of I-15, from Palmdale Road/7th Street to Oak Hill Road.

- Amargosa Road on the west side of I-15, from Palmdale Road to Phelan Road.

- Caliente Road on the west side of I-15, from Joshua Street to Oak Hill Road.

- Develop an adequate but limited system of all-weather collector roads where demands for roads do not justify secondary or major highway designations.

- Reevaluate major and secondary highway designations in remote desert areas with a view to downgrading designations on roads with low traffic counts.

- At the discretion of the County Transportation Department, require the dedication of additional highway right-of-way in a new development where there is no predesignation on the General Plan circulation maps, on section lines, quarter section lines and sixteenth section lines as follows:

  - On section and quarter section lines, a forty (40) foot half-width shall be dedicated to the County.

  - On sixteenth section lines, a thirty (30) foot half-width shall be dedicated to the County.

Housing/Demographics

- Encourage the application of the Housing Incentive Programs to clustered development, (single family and multiple family), in the Desert areas.

- Discourage housing in the dry lakes of the Desert by disallowing General Plan bonus densities for residential development.

- Establish programs to prevent discrimination in housing in the Desert region.

- Study the options of infrastructure development in order to achieve a more logical and efficient use of available resources in the Desert.

- Explore the feasibility of expanding the supply of commercially and industrially zoned land in the Baker, Barstow and Victorville RSAs when adequate housing supply exists and is underutilized.

Land Use

- Permit minimum parcel sizes of 2 1/2 to 40 acres within Planned Development (PD) districts within former Desert Service Centers (DSSC's).

BAKER SUBREGIONAL PLANNING AREA (RSA 31)

The Baker Subregion is part of the sparsely settled area of the Desert (see Fig. III-GG). Large tracts of land are in military installations (Fort Irwin and portions of the China Lake and Edwards Air Force Base facilities) or used for mining. Very little growth is expected to occur in the Baker area; the little growth that occurs is expected to be around existing communities of Newberry Springs, Searles Valley and Baker.

The lack of infrastructure facilities and delivery systems are major constraints to future development in this subregion. Groundwater is available along the Mojave River but not in other areas; outlying housing developments rely on water haulers. All existing development is on septic systems and no sewers are expected to be added in the near future. Improved roads even in the established communities are limited to major highways only; most roads in outlying areas are unpaved. Development in the Baker Subregion is further limited by the rugged terrain, the fragile nature of the desert ecosystem and the potential for flash floods especially in the low lying areas.

The Newberry Springs/Harvard area (see Figure III-29) is set aside as an individual planning area. This area which covers an area over 1,000 square miles shall be prefixed with the letters "NH" on the official General Plan maps. All other areas in the Baker subregion shall be prefixed with the letters "BK."

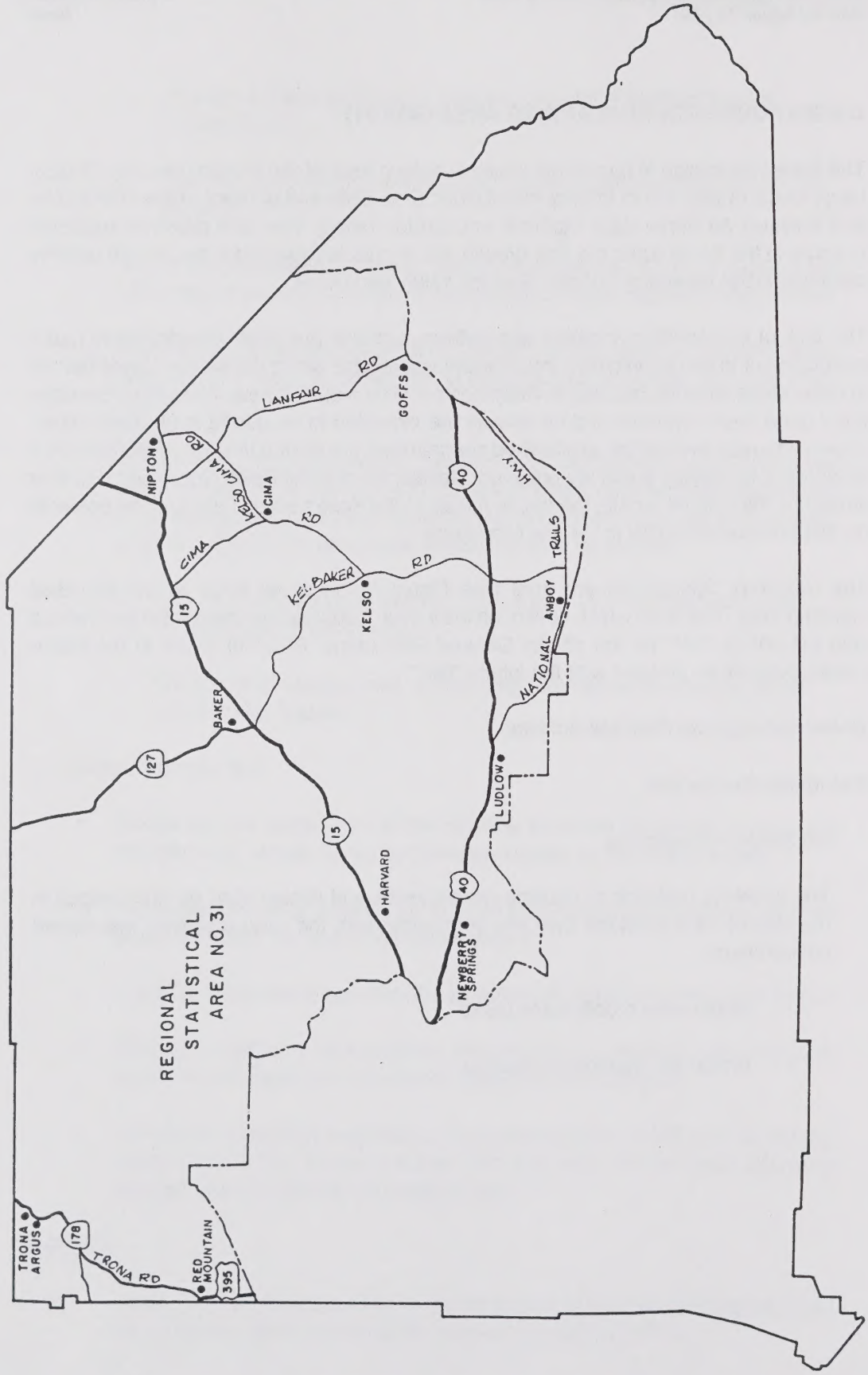
Baker Subregional Policies/Actions

Man-made Resources

Housing/Demographics

The following methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

- Single-wide mobilehome parks.
- Temporary dependent housing.



SAN BERNARDINO COUNTY GENERAL PLAN
REGIONAL STATISTICAL AREA 31 PORTION

NORTH

MILES 3 6 12 18

MAP III-GG

Figure III-29
Summary of Newberry Springs/Harvard Planning Area

General Location: Desert Region (RSA 31) **Specific Location** See Map III-HH

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

SAN BERNARDINO COUNTY GENERAL PLAN

NEWBERRY SPRINGS / HARVARD COMMUNITY PLAN

MAP III-HH

NORTH

MILE .5 1 2 3

SCALE

BARSTOW SUBREGIONAL PLANNING AREA (RSA 32a)

Most of the future growth in the Barstow Subregion is expected to occur in the incorporated City of Barstow itself and in Lenwood and other adjacent unincorporated communities. Map III-II depicts the location of the Barstow subregional planning area. The main constraint to development in this area is the threat of shortage of potable water. Water in the region comes from the Mojave River which is also the source for the rapidly growing cities of Victorville, Hesperia, Apple Valley and Adelanto. Many studies have concluded that the Mojave will not be adequate to serve the buildout population for all these communities if they are developed at currently planned densities. New water sources are currently being sought. The fragile desert ecosystem is also an environmental constraint that may limit future development.

The only planning area in the Barstow subregional planning area is the land area within the sphere of influence of the City of Barstow (see Map III-JJ). This planning area shall be prefixed with the letters "BR" on the official General Plan maps. All other areas within Barstow subregional planning area shall be prefixed with the letters "BT".

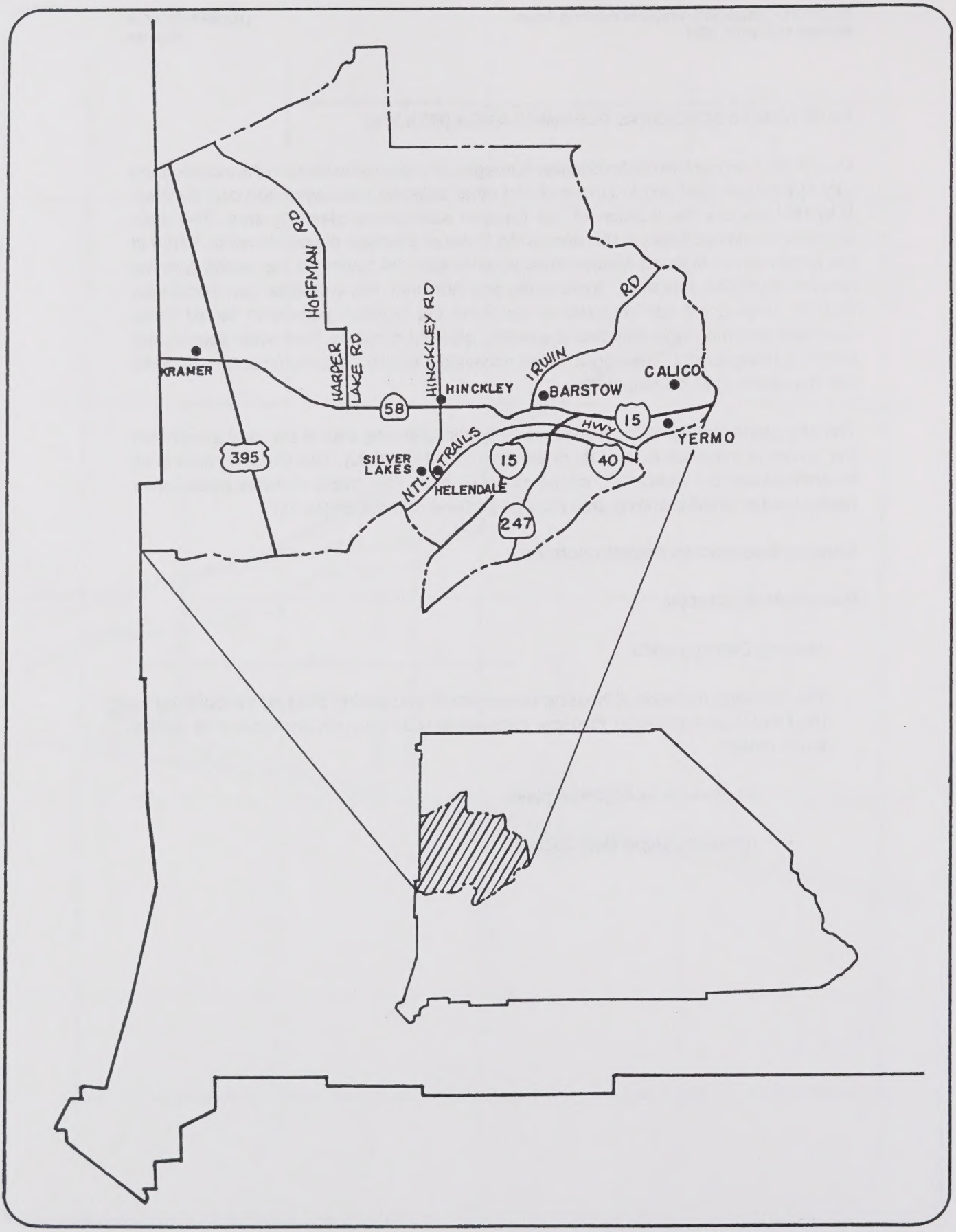
Barstow Subregional Policies/Actions

Man-made Resources

Housing/Demographics

The following methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

- Single-wide mobilehome parks.
- Temporary dependent housing.



SAN BERNARDINO COUNTY GENERAL PLAN
REGIONAL STATISTICAL AREA 32G PORTION

MAP III-II

NORTH

MILES 2 4 6
SCALE

Figure III-30
Summary of Barstow Planning Area

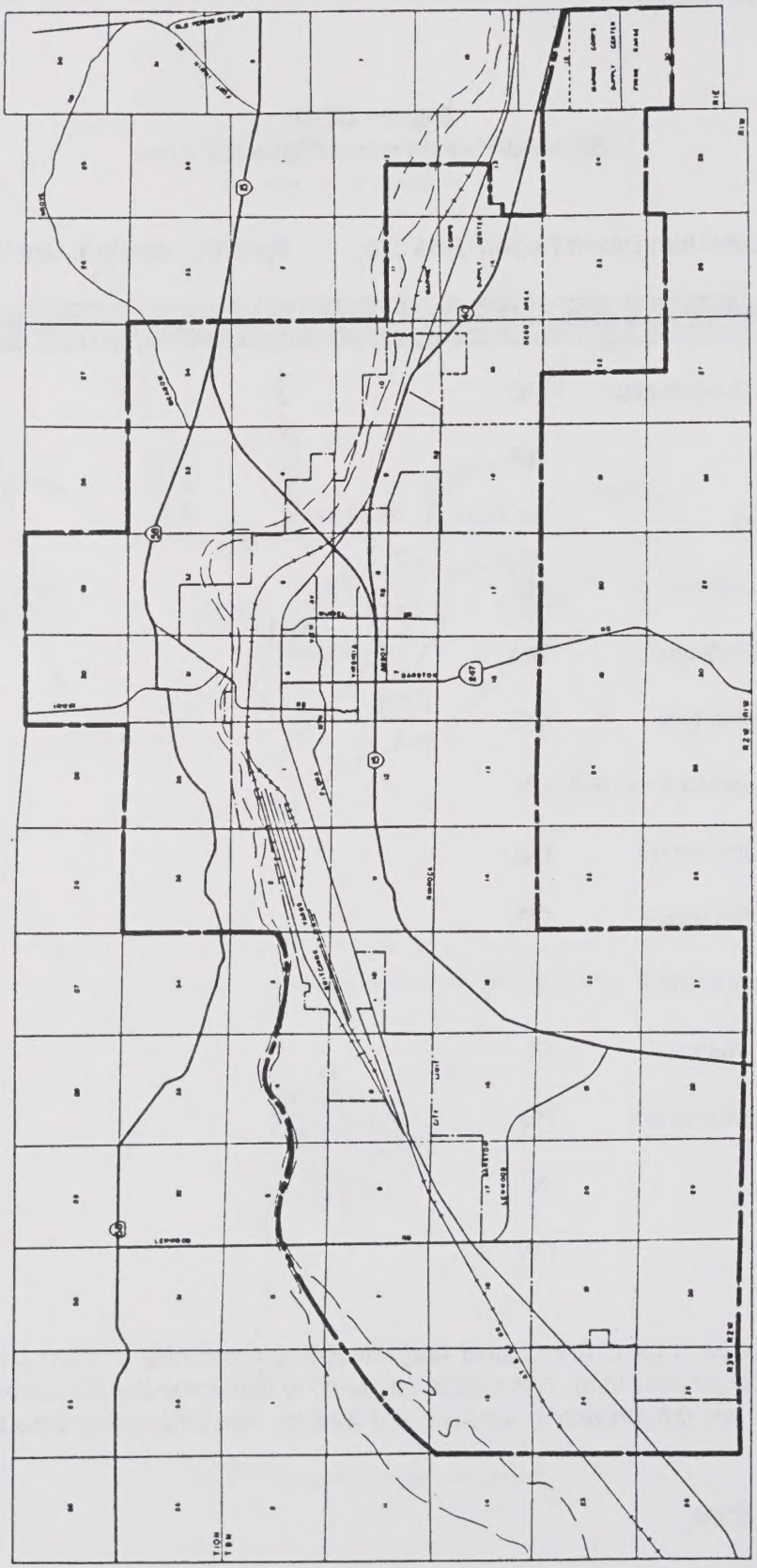
General Location: Desert Region (RSA 32a) **Specific Location:** See Map III-JJ

LAND USE DESIGNATION	ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	
Agriculture	AG	
Rural Living	RL	
Single Residential	RS	
Multiple Residential	RM	
Office Commercial	CO	
Neighborhood Commercial	CN	
General Commercial	CG	
Service Commercial	CS	
Community Industrial	IC	
Regional Industrial	IR	
Planned Development	PD	
Institutional	IN	
Floodway	FW	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN

BARSTOW SPHERE OF INFLUENCE PORTION

NORTH

MAP III-JJ

MILE .5 1

SCALE

VICTOR VALLEY SUBREGIONAL PLANNING AREA (RSA 32b)

The Victor Valley area has been one of the fastest growing areas in San Bernardino County since 1975. See Map III-KK which depicts the boundary of this subregion. The focus of most of the growth has been the newly incorporated City of Hesperia and the Town of Apple Valley. Lucerne Valley remains relatively rural and sparsely developed. These areas and Phelan have few large blocks of privately-owned, undeveloped land. As other remaining areas are committed, these areas may be looked at as areas with development potential in the long term. Currently, there are little infrastructure facilities to support the potential buildout capacity of the area. Future growth in this area will be contingent on the acquisition of needed infrastructure facilities/public services. In addition, even without approving more subdivisions, there are thousands of vacant already created lots which have the potential to develop.

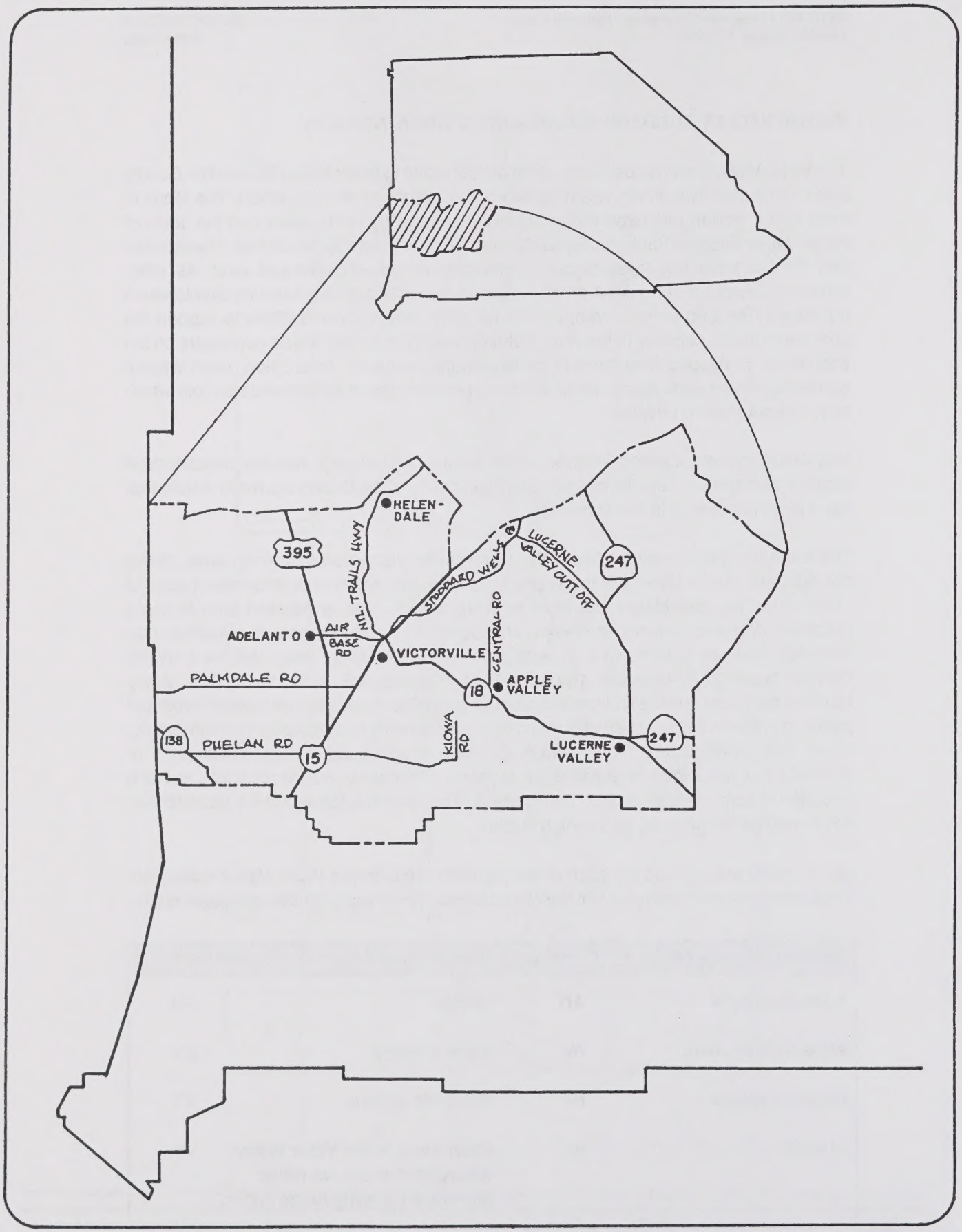
Population growth, desired lifestyle, water quality and supply, needed infrastructure facilities and services and the overall carrying capacity of the Desert are major issues that need to be addressed in this subregion.

There are four incorporated cities in the Victor Valley subregional planning area. These are Adelanto, Apple Valley, Hesperia and Victorville. The spheres of influence of each of these cities are considered individual planning areas. Also, a detailed plan is being prepared for the community of Phelan. This community planning area is considered an individual planned area as well. In addition, the Summit Valley area, and the I-15/395 Corridor bounded by Interstate 15 on the East, Highway 395 on the West, Bear Valley Cutoff to the North and the California aqueduct to the South are also considered individual planning areas. A large portion of Summit Valley is currently being studied for high density urban type development. The I-15/395 Corridor is within the sphere of influence of Hesperia but its unique characteristics in terms of location and accessibility make it suitable for high intensity quality development. The area is expected to be planned and developed as the gateway to the High Desert.

Listed below are prefixes for each of the planning areas in the Victor Valley subregion. These prefixes shall be applied on the official General Plan maps for the applicable areas.

Planning Areas	Prefix	Planning Areas	Prefix
Adelanto sphere	AD	Phelan	PH
Apple Valley sphere	AV	Summit Valley	SV
Hesperia sphere	HP	Victorville sphere	VT
I-15/395	II	Other areas in the Victor Valley subregion that are not within any of the Planning Areas above.	VV

Figures III-31 through III-37 depict the planning areas listed above.



SAN BERNARDINO COUNTY GENERAL PLAN
REGIONAL STATISTICAL AREA 32b PORTION

MAP III-KK

NORTH

MILES 2 4 6
SCALE

Victor Valley Policies/Actions

Man-made Resources

Housing/Demographics

The following methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

- Single-wide mobilehome parks.
- Temporary dependent housing.

Following are profiles of each these planning areas.

Figure III-31
Summary of Adelanto Planning Area

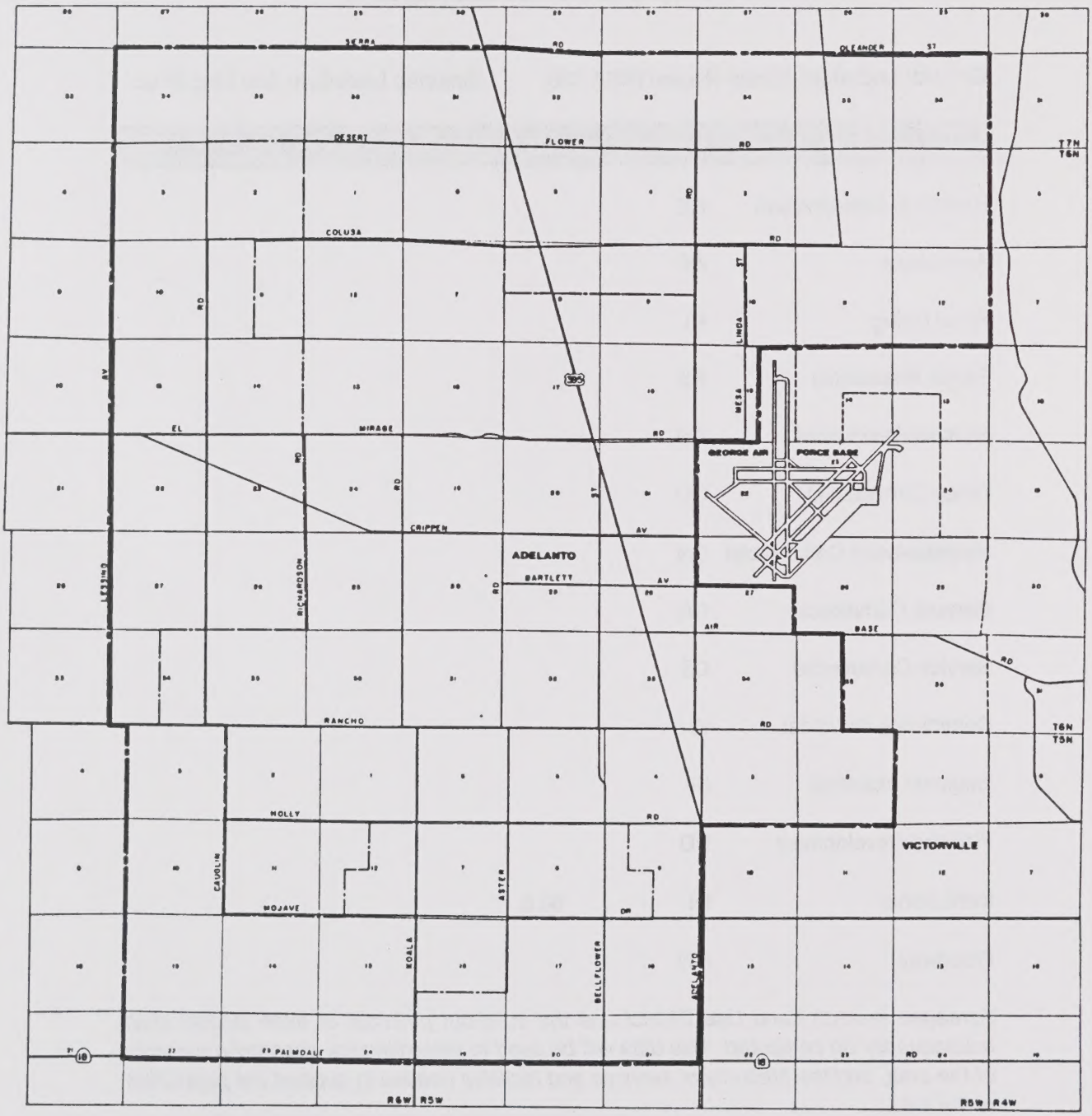
General Location: Desert Region (RSA 32b) **Specific Location:** See Map III-LL

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN	60.6	
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
ADELANTO SPHERE OF INFLUENCE PORTION

MAP III-LL

NORTH

MILE .5 1
SCALE

Figure III-32
Summary of Apple Valley Planning Area

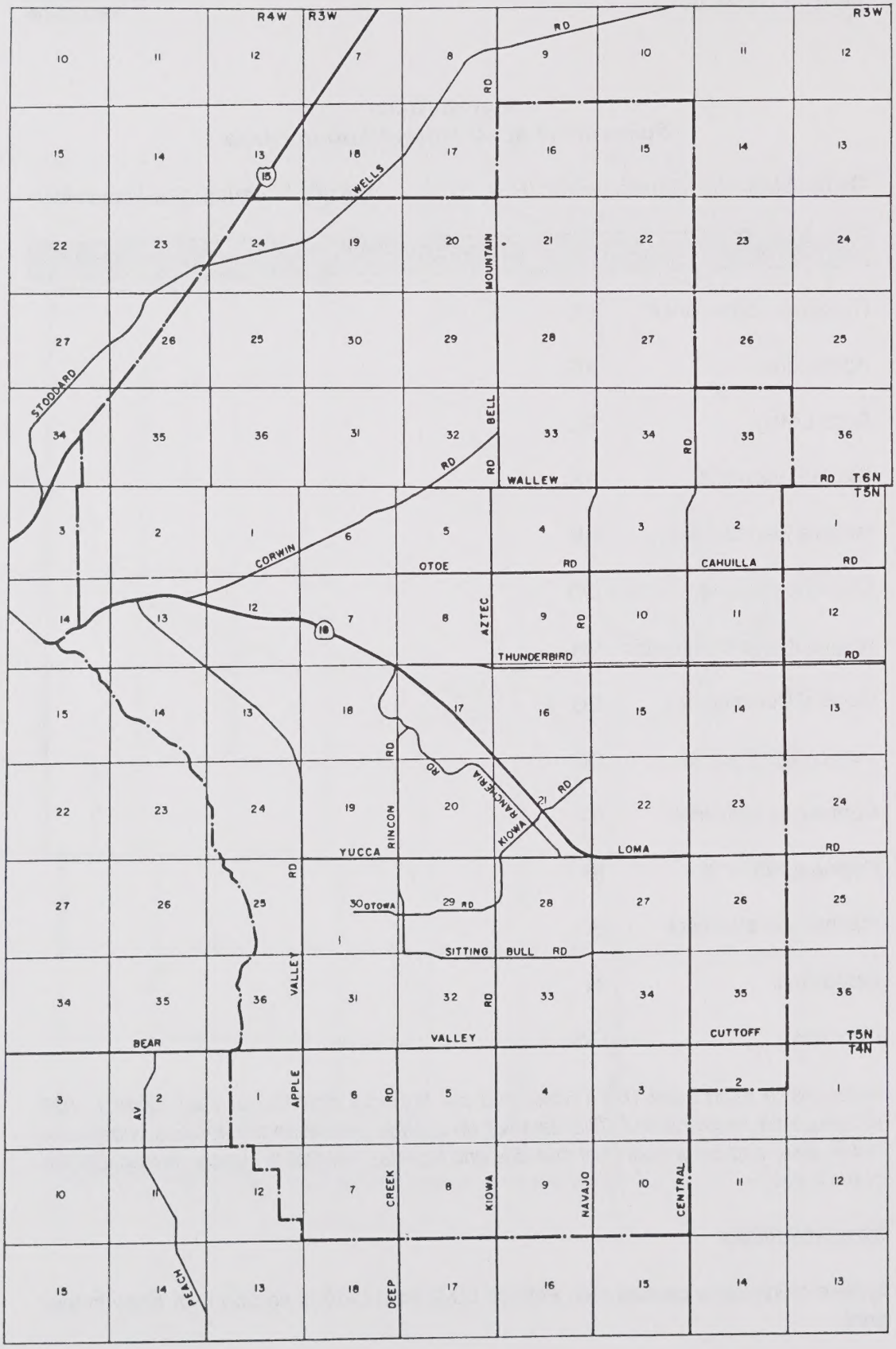
General Location: Desert Region (RSA 32b) **Specific Location:** See Map III-MM

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
APPLE VALLEY SPHERE OF INFLUENCE PORTION

MAP III-MM

NORTH

MILE .5 1
SCALE

Figure III-33
Summary of Hesperia Planning Area

General Location: Desert Region (RSA 32b) **Specific Location:** See Map III-NN

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.

SAN BERNARDINO COUNTY GENERAL PLAN
HESPERIA SPHERE OF INFLUENCE PORTION

MAP III-NN

NORTH

MILE .5 1
SCALE

Figure III-34
Summary of Victorville Planning Area

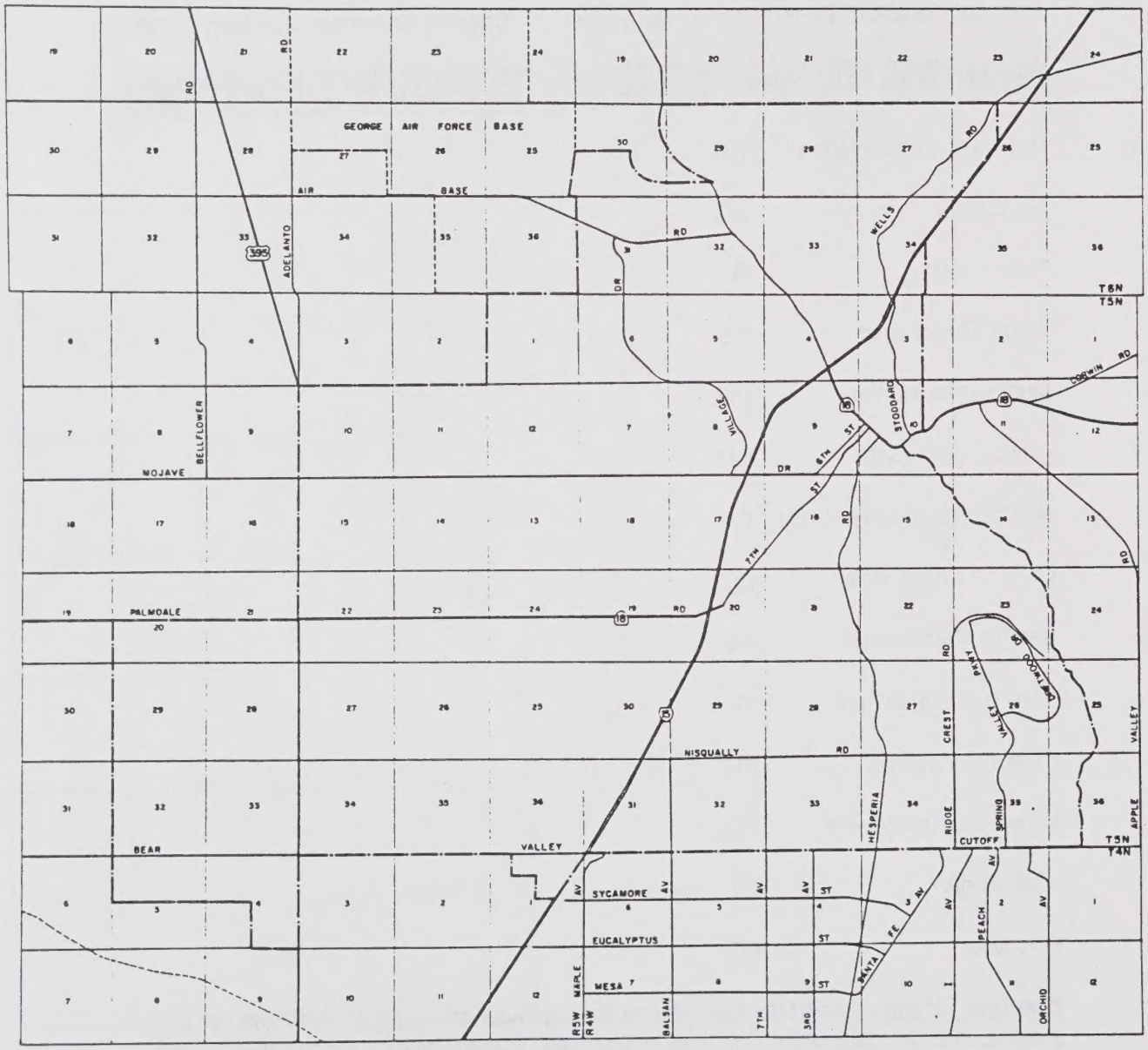
General Location: Desert Region (RSA 32b) **Specific Location:** See Map III-OO

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
VICTORVILLE SPHERE OF INFLUENCE PORTION

NORTH

MAP III-00

MILE .5 1 2
SCALE

Figure III-35
Summary of Phelan Planning Area

General Location: Desert Region (RSA 32b) **Specific Location:** See Map III-PP

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL	78,538	
Single Residential	RS	4,103	
Multiple Residential	RM	445	
Office Commercial	CO	26	
Neighborhood Commercial	CN	99	
General Commercial	CG	534	
Service Commercial	CS	165	
Highway Commercial	CH		
Community Industrial	IC	778	
Regional Industrial	IR		
Planned Development	PD	349	
Institutional	IN	323	
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

SAN BERNARDINO COUNTY GENERAL PLAN
PHELAN AREA PLAN PORTION

MAP III-PP

NORTH

MILE .5 1 2
SCALE

PHELAN AREA PLAN POLICIES/ACTIONS

Natural Resources

Biological

PH/BI-1 Encourage the retention of specimen-size Joshua Trees (as defined below) by requiring the Building Official to make a finding that no other reasonable siting alternative exists for the development of the land.

Specimen-size trees are defined as meeting one or more of the following criteria:

- Circumference measurement equal to or greater than 50 inches, measured at 4 feet from grade.
- Total tree height of 15 feet or greater.
- Trees possessing a bark-like trunk.
- A cluster of ten (10) or more individual trees, of any size, growing in close proximity to each other.

PH/BI-2 Development requiring tract maps or conditional use permits within the United States Fish and Wildlife Service Class 2 areas shall prepare and submit a focused biological resources survey. The survey information shall incorporate the full on-site and off-site survey recommended by Fish and Wildlife Service for a Class 2 habitat survey and shall be presented to the County for review and approval prior to issuance of any permit to disturb the ground at the project site.

PH/BI-3 Development requiring tract maps or conditional use permits in the Class 3 habitat shall submit clearance survey for the project site only, unless positive findings of tortoises or tortoise sign are discovered during the survey.

PH/BI-4 Should tortoise or tortoise sign be encountered on-site during construction, construction shall be halted until a qualified biologist can visit the site and conduct an on-site clearance survey. If further mitigation is required, the biologist shall identify the additional measure(s)and the applicant shall provide such mitigation prior to proceeding with the ground disturbing activity. When a tortoise is present, this shall include acquisition of a Section 10 (a) permit from the U.S. Fish and Wildlife Service.

PH/BI-5 The County shall support the preparation of a regional Habitat Conservation Plan (HCP) for the desert tortoise. This support shall be in the form of providing its fair-share portion of the funding to develop desert tortoise HCP in cooperation with other local jurisdictions, the Fish and Wildlife Service and Department of Fish and Game and Bureau of Land Management. Funds may be obtained from developer fees in Class 1-3 tortoise habitat.

PH/BI-6 The County shall confer with wildlife and federal land management agencies regarding the need to prepare a regional Habitat Conservation Plan (HCP) for the Mojave Ground

Squirrel. If an HCP is developed, the support shall be in the form of providng its fair-share portion of the funding to develop a Mojave Ground Squirrel HCP in cooperation with other local jurisdictions and the Department of Fish and Game and Bureau of Land Management. Funds may be obtained from the developer fees in areas north of Duncan Road.

Water

PH/WA-1 Establish the minimum parcel size at five (5) acres in areas not served by a licensed water purveyor until such time as these lands are brought within the service boundaries of a licensed purveyor.

PH/WA-2 Where Commercial/Industrial/Multiple Family Residential users are required through the Conditional Use Permit process to have landscaped areas, a maximum of ten percent (10%) of the project parcel shall be retained in planted landscaped areas. Additional areas may include natural undeveloped and undisturbed areas that have sufficient native or compatible vegetation to promote a vegetated desert character and water conservation. All required vegetation shall be continuously maintained in good condition. A landscape and irrigation plan shall be submitted and reviewed with any discretionary review request that proposes to install landscaping.

Open space areas which are not to be left in a natural state will be landscaped with plants and vegetation in compliance with landscaping standards listed below.

Landscaping Standards

Landscaping will consist of native or drought-tolerant plants capable of surviving the desert environment and climate with a minimum of maintenance and supplemental watering. A list of plants determined capable of meeting this criteria is available. Other plants may be considered on their merits in meeting this criteria. Detemination of plant species suitability will be made upon submission of project plans.

Landscaping materials may also consist of wood timbers, decorative rock/boulders, sand, bark, gravel, or a combination thereof; provided, however, that the majority of landscape materials shall consist of plants as set forth above.

Irrigation of required landscaped areas shall be by drip irrigation and matched precipitation rate, low-gallonage sprinkler heads, bubblers and timing devices. Timing devices should include soil moisture sensors.

No more than twenty-five percent (25%) of landscaped areas, for multiple residential, commercial or industrial developments, shall be landscaped with lawn, turf or similar plant materials.

Lawn and turf shall be of low water-use types such as Tall Fescues, Hybrid Bermudas, Saint Augustine, Zoysia or any similar plants which are low water types.

PH/WA-3 Encourage the adoption and implementation of a water conservation ordinance by each water service agency within the project area. The goal is to minimize water use and extend the date at which utilization of State Project Water is required.

PH/WA-4 Require subdivisions within the project to have all common landscaping be xeriscape plants as determined by the County and the water supply agency during review of landscape plans.

PH/WA-5 Encourage the use of ultra-low-flush (ULF) toilets in area with water supply limitations because their use at locations where septic tanks are acceptable can actually enhance septic tank operational efficiency.

PH/WA-6 The County shall require use of drip irrigation systems or systems of equivalent efficiency for all landscaping at commercial and industrial facilities and all common areas of residential developments. The County shall encourage the use of similar systems on individual residential lots.

PH/WA-7 The County shall encourage the use of pervious paving materials on all commercial, industrial and institutional parking areas, where feasible. Large parking areas should consider using landscape as depressions to receive and percolate runoff as an alternative.

PH/WA-8 If a wastewater treatment system is developed for the project area, the County shall support a system which will reclaim the treated effluent and make it available for public or private landscape purposes.

PH/WA-9 Encourage the retention of natural drainage areas unless such areas cannot carry flood flows without damage to structures or other facilities.

PH/WA-10 Support water system charges (stand-by, availability or connection charges) that are sufficient to provide water system infrastructure to meet the population growth forecasted. Should growth actually exceed estimates, the County shall inform the public water supply agencies in the project area and recommend modification of fees to ensure that infrastructure facilities keep pace with growth-related water demand.

PH/WA-11 Encourage the construction of a water treatment plant within the project area and sharing of State Project Water.

PH/WA-12 Require that water monitoring in wells beneath and downstream of the Phelan core area include periodic monitoring for pollutants released by subsurface water systems. This monitoring should be in addition to the Annual Water Quality Report.

PH/WA-13 Encourage the Regional Water Board to conduct an investigation of the need and feasibility of installing a wastewater treatment plant and collection system in the Phelan core area.

PH/WA-14 Require commercial or industrial operations with discharges other than standard domestic waste to submit a report for County and Regional Board review. This report shall identify

nondomestic or industrial wastes contained in wastewater and shall quantitatively evaluate the potential for water quality impacts from the discharge.

Man-made Resources

Transportation/Circulation

PH/TC-1 The County shall program for implementation the road improvements necessary to maintain LOS "C." Recommended improvements are identified in tables 6, 7 and 8 (pages 8E 15 - 18) of the EIR along with potential time frames.

PH/TC-2 Improvement cost allocation for two types of improvements will be required: the improvements that are necessary to accommodate additional traffic from new development in the plan area and the improvements that will be required due to regional development and normal traffic growth. Sections of road that will be needed to fill in gaps in the circulation system will require financing by an areawide program such as an improvement district or by such funding as might be allocated to the area in the County improvement programs. The County will identify the preferred approach and draft a program to fund the required improvements in sufficient time to meet the demand created by growth in the project area.

PH/TC-3 The County should implement a traffic evaluation and monitoring program as follows:

The following evaluation and monitoring program/criteria may be used to determine changes in the traffic level of service and the potential changes that may be caused by development within the project area. The program/criteria outlines below may also be used as guidelines for evaluating traffic changes and the level of service on project area roads:

A. Residential development of more than 100 units will require a cumulative traffic impact to ascertain the impact on the roadways and intersections affected by the proposed development.

B. All medium sized residential developments (under 100 units but greater than 5) and small commercial developments (under 5,000 square feet) shall be reviewed to determine whether a traffic impact study to determine the impact on immediately adjacent streets and adjacent intersections is required.

C. Commercial developments of more than 5,000 square feet shall be reviewed to determine whether a cumulative traffic impact study to determine the impact on the adjacent streets and intersections, as well as the roadways and intersections expected to be travelled to access the proposed site is required.

D. Signalized intersection mitigation may be required if a reduction of two or more levels of service is experienced when adding the development traffic to the intersection or as traffic increases. The signalized intersection "Level of Service," as defined in the 1985 Highway Capacity Manual, should not be reduced below LOS "C" by the operations method, considering only the major traffic movement.

E. Unsignalized intersection mitigation may be required if the unsignalized intersection level of service, as defined in the 1985 Highway Capacity Manual, decreases one level of service to LOS "B" on the major, nonstopped street. Mitigation may also be required if the level of service on the minor, stopped street decreases two levels of service or drops below LOS "C" in accordance with the 1985 Highway Manual.

F. When traffic reaches 3,000 vehicles or more per day, no passing zones and centerlines should be marked on the two-lane highways. This would hold for exising roadways as long as adequate width is available on the existing two-lane roadway and accidents are minimal.

PH/TC-4 All residential tracts of more than 5 lots will provide paved access within the project.

Land Use/Growth Management

PH/LU-1 Limit the maximum dwelling units per acre (du/ac) for residential development to six (6) which includes single family, multiple family, mobilehome and recreational vehicle parks and commercial lodgings, because the community values increased open space.

PH/LU-2 Restrict the minimum residential lot size to one (1) acre, except for the RS-18M existing on October 1, 1990, to maintain open space and the rural atmosphere of the community.

PH/LU-3 Provide for Salvage Operations and Concrete Batch Plants in the Community Industrial (IC) Official Land Use District located in Township 4N Range 7W Sections 9, 10, 15 and 16 (vicinity of the Phelan Landfill), subject to a Conditional Use Permit, because there is a need for these services. The full range of industrial uses available in the Regional Industrial (IR) district would not be consistent with the rural atmosphere of the community.

PH/LU-4 Encourage the formation of a sewering entity where commercial and industrial activity can support the cost of providing this capability.

PH.LU-5 Limit the future expansion possibilities of the one (1) acre residential areas (RS-1) by establishing geographic boundaries as follows:

A. Solano Road (north), Crystal Aire Road (west), Desert View Road (east) and the south side of Tamarack Road (south), as shown on the adopted Official Land Use Map (Pinon Hills area) adopted in November, 1990.

B. State Highway 18 (south), Lebec/Azalea (west), Paramount (east) and South Street (north), as shown on the adopted Land Use Map (North Phelan area) adopted in November, 1990.

C. Portions of Township 4N Range 7W, Sections 14, 23, 24, 25, 26 and Township 4N Range 6W, Sections 17, 18 19 and 20, as shown on the adopted Land Use Map (Phelan area) adopted in November, 1990.

D. Portions of Township 5N Range 6W, Sections 35 and 36, and Township 4N Range 6W, Sections 1, 2, 11 and 12, as shown on the adopted Land Use Map (Baldy Mesa area) adopted in November, 1990.

PH/LU-6 Preserve scenic vistas where natural slope exceeds fifteen (15) per cent by requiring building foundations for residential, nonresidential and accessory structures to conform to the natural slope to ensure that rooflines do not eliminate or dominate the ridge lines.

PH/LU-7 Provide that residentially designated property of 1 gross acre or larger can have a fence height of five (5) feet within the front and street side yards to provide for more complete utilization of the setback areas.

PH/LU-8 Permit a six (6) square foot advertising sign in the RC and RL Official Land Use Districts to provide a nominal advertising capability for the sale of products grown on-site.

PH/LU-9 Do not permit Wholesale/Warehouse Services, with the exception of mini-storage subject to design criteria, Contract/Construction Services, Agricultural Support Services and Primary Signs in the CG Official Land Use District to preserve an aesthetically more pleasing business atmosphere for the core commercial areas.

PH/LU-10 Permit kennels and catteries on one (1) acre parcels in the IC Official Land Use District to allow for this activity on reduced parcel sizes in a nonresidential area.

PH/LU-11 Restrict the maximum structure height allowed in the CO, CG, CH and CS Official Land Use Districts to 35 feet, and in the IC district to 50 feet to preserve the rural character of the area.

PH/LU-12 Increase the minimum lot dimensions in the RS and RM Official Land Use Districts to 120 feet/120 feet to facilitate a more uniform lot pattern when parcels are subdivided to the one (1) acre minimum, and in the CS and IC Official Land Use Districts to maintain uniformity with other commercial districts.

PH/LU-13 Require the front and side street setbacks be 25 feet for every Official Land Use District except PD and IN to preserve a more rural atmosphere. Require only a 10 feet side yard setback in the RS Official Land Use District because of the one (1) acre minimum parcel size.

PH/LU-14 Provide for the minimum district size in the CN Official Land Use District to be 2.5 acres because that is the predominant parcel size within the plan boundaries.

PH/LU-15 Permit multiple family units in the RM Official Land Use District, up to a maximum of four (4), without a Conditional Use Permit because the one (1) acre minimum parcel size has adequate area to accommodate that density without an increased level of review.

PH/LU-16 The maximum number of parcels which may be created through the land division process shall be consistent with the Official Land Use District (OLUD) maximum density. In areas where topography exceeds 20% slope, additional criteria apply.

A. To grade a level building pad, each new parcel must have a buildable site of at least 7000 square feet; with a level pad area no smaller than 60 feet by 80 feet. The building envelope will not exceed a 20% slope.

B. In cases when the building envelope exceeds 20% slope, stepped house footings shall be employed to meet the contour of the existing terrain. Building grading will not be allowed except for the driveway and turn-around area for vehicles. The building envelope will not exceed a 40% slope.

C. To minimize hillside cuts and to preserve natural terrain, where slopes exceed 20% parcels may be created with density transfers through the Planned Development process. Parcels thus created shall be no smaller than 70% of the OLUD minimum. The building envelope must be at least 6000 square feet, with a minimum width of 60 feet.

D. In cases of density transfer, all parcels created which are larger than the OLUD minimum will have deed restrictions placed upon them to preclude further subdivision.

PH/LU-17 Planned Developments which utilize the density transfer provision will have a minimum parcel size no smaller than one half (1/2) the OLUD minimum.

PH/LU-18 The County Solid Waste Management Department shall initiate the process for selecting and permitting a new landfill site by June 1994 to meet the Phelan Area Plan's solid waste disposal requirements beyond the year 2000.

PH/LU-19 The Solid Waste Management Department will conduct a waste characterization study of the Municipal Solid Waste disposed of at the Phelan Landfill. Based on this characterization, the County shall establish appropriate recycling facilities at the Landfill to achieve the year 1995 recycling goal of 25% and the year 2000 goal of 50% as mandated by AB 939.

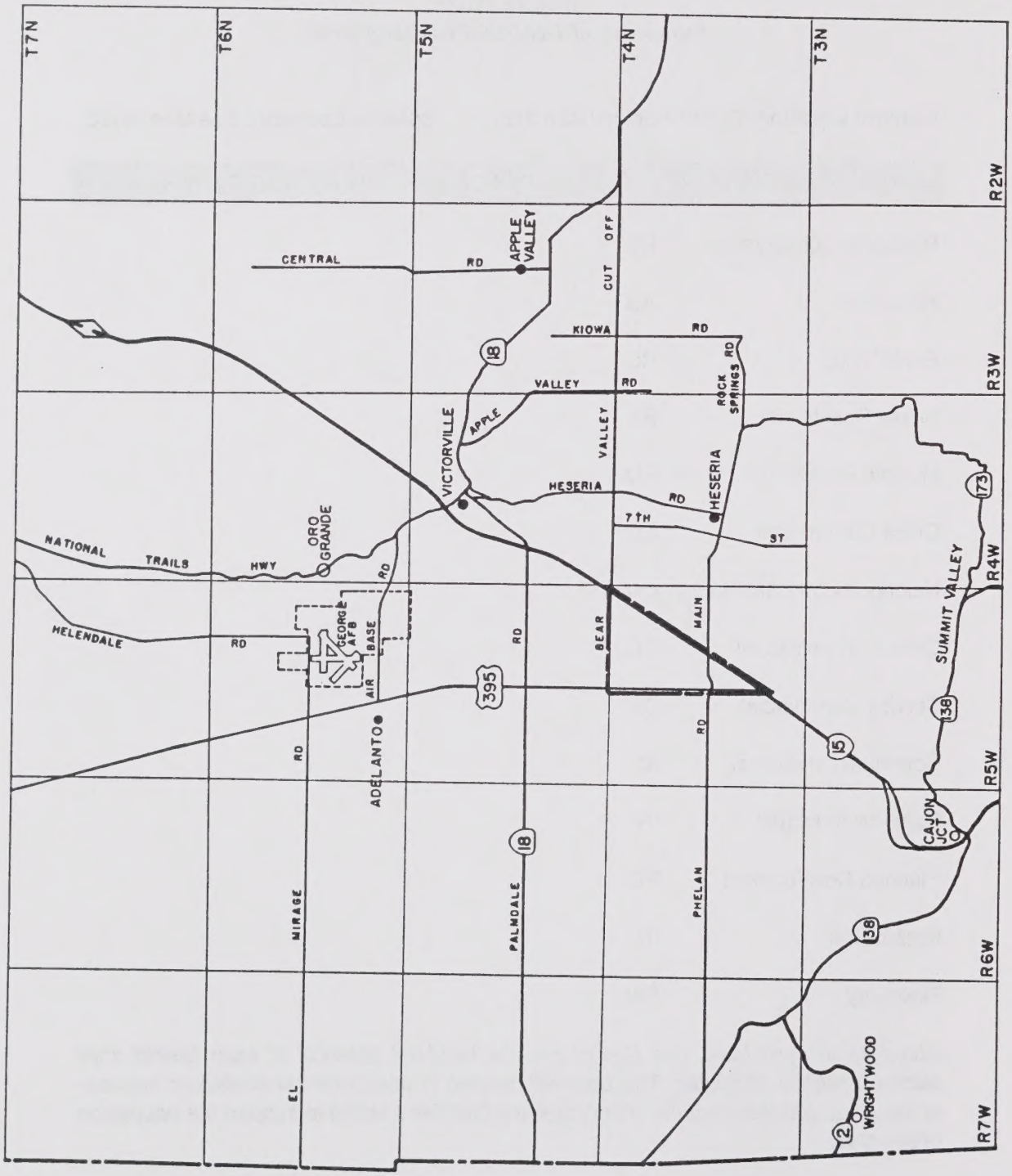
PH/LU-20 When specific storm water drainage or wastewater treatment system facilities are required in the future, construction will utilize the primary mitigation measure for storm water drainage facilities of designing and constructing the flood control channels to retain the natural channel bottom. This protects wildlife corridors and prevents loss of critical habitat in the region.

Figure III-36
Summary of I-15/395 Planning Area

General Location: Desert Region (RSA 32b) **Specific Location:** See Map III-QQ

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
I-15/395 CORRIDOR PORTION

NORTH

MAP III QQ

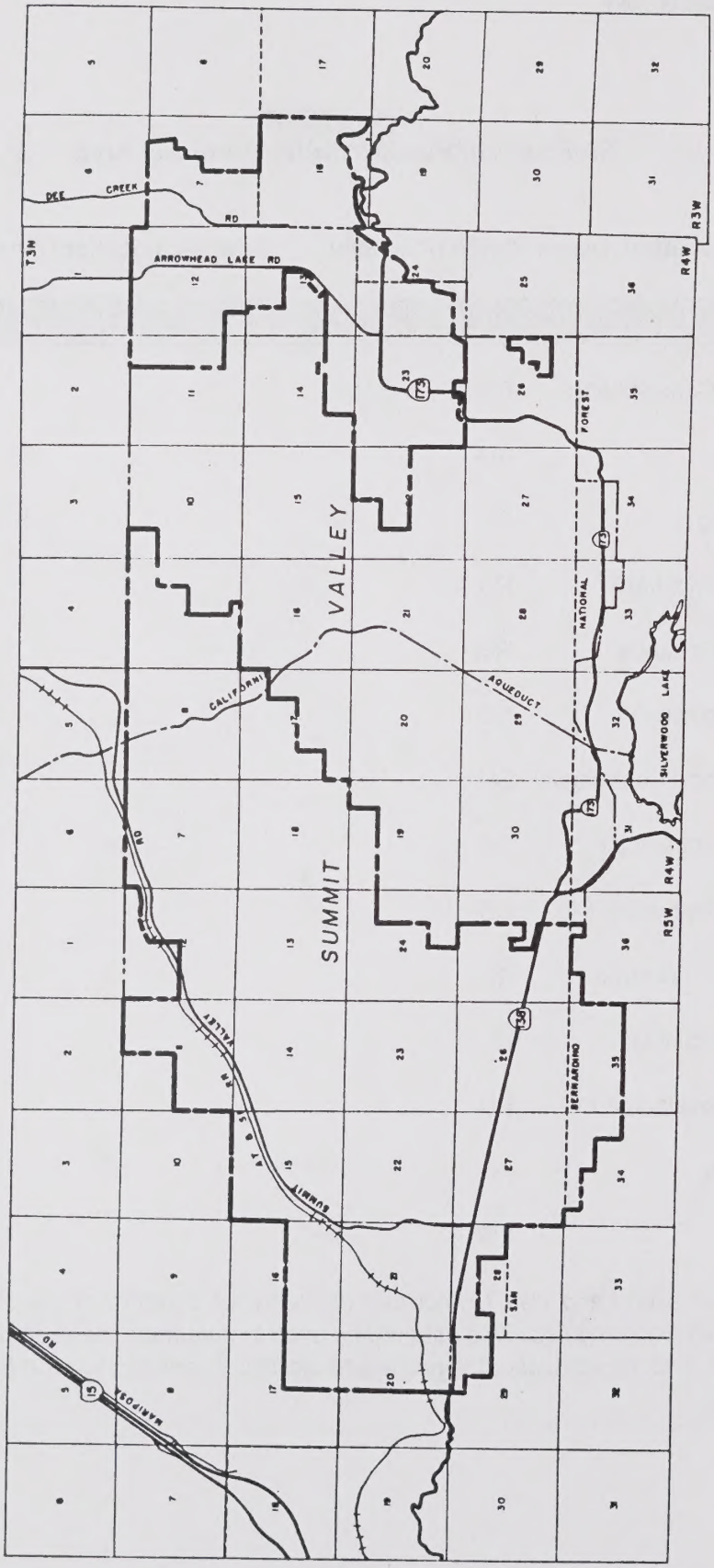
MILE 1 2 3
SCALE

Figure III-37
Summary of Summit Valley Planning Area

General Location: Desert Region (RSA 32b) **Specific Location:** See Map III-RR

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
SUMMIT VALLEY PORTION

NORTH

MAP III-RR

MILE .5 1
SCALE

MORONGO BASIN SUBREGIONAL PLANNING AREA (RSA 33)

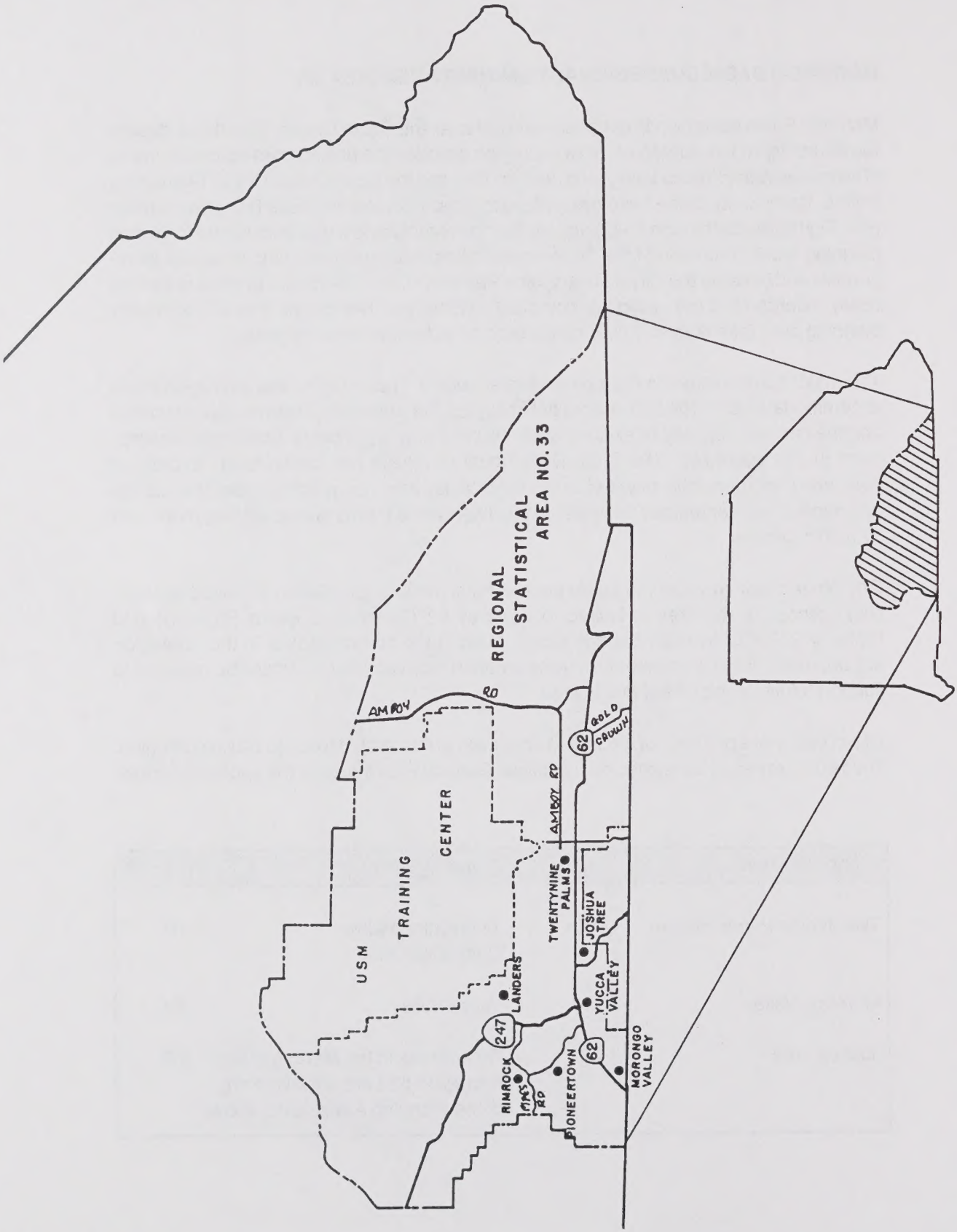
Morongo Basin subregion is generally referred to as the South Desert. Map III-SS depicts the boundary of this subregion. This subregion includes the unincorporated communities of Morongo Valley, Yucca Valley, and Joshua Tree and the incorporated City of Twentynine Palms. Community plans have been prepared and adopted for these four communities (see Figures III-39 through III-42) and the four communities are thus considered individual planning areas. A portion of the Twentynine Palms community planning area was incorporated and became the City of Twentynine Palms in 1988. The sphere of influence of the newly incorporated city, although completely within the Twentynine Palms community planning area (see Map III-TT), is considered an individual planning area.

The major constraint is the finite groundwater supply. Theoretically, this subregion could accommodate up to 102,000 residential units, but the absence of infrastructure facilities and the carrying capacity of existing water sources may significantly limit future development in this subregion. The State Department of Health has continuously expressed concerns over the quality of water in Morongo Valley and Yucca Valley. Also, the fluoride and mineral salt contents of the water in the Twentynine Palms area are being monitored by health officials.

One other major constraint to future development in the South Desert is limited accessibility; access to the area is limited to Highway 62 (Twentynine Palms Highway) and Highway 247 (Old Woman Springs Road). Most of the collector roads in this subregion are unpaved. Major investment on transportation facilities may therefore be required to support future development in this area.

Listed below are prefixes for each of the planning areas in the Morongo Basin subregion. These prefixes shall be applied on the official General Plan maps for the applicable areas.

Planning Areas	Prefix	Planning Areas	Prefix
Twentynine Palms Sphere	TC	Twentynine Palms Community Plan	TP
Morongo Valley	MV	Yucca Valley	YV
Joshua Tree	JT	Other areas in the Morongo Basin subregion that are not within any of the Planning Areas listed above.	MB



SAN BERNARDINO COUNTY GENERAL PLAN
REGIONAL STATISTICAL AREA 33

NORTH

MAP III-SS

MILES 3 6 12
SCALE

Morongo Basin Subregional Policies/Actions

Man-made Resources

Housing/Demographics

The following methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

- Single-wide mobilehome parks.
- Temporary dependent housing.

Following are profiles of each of these planning areas.

Figure III-38
Summary of Twentynine Palms (Sphere) Planning Area

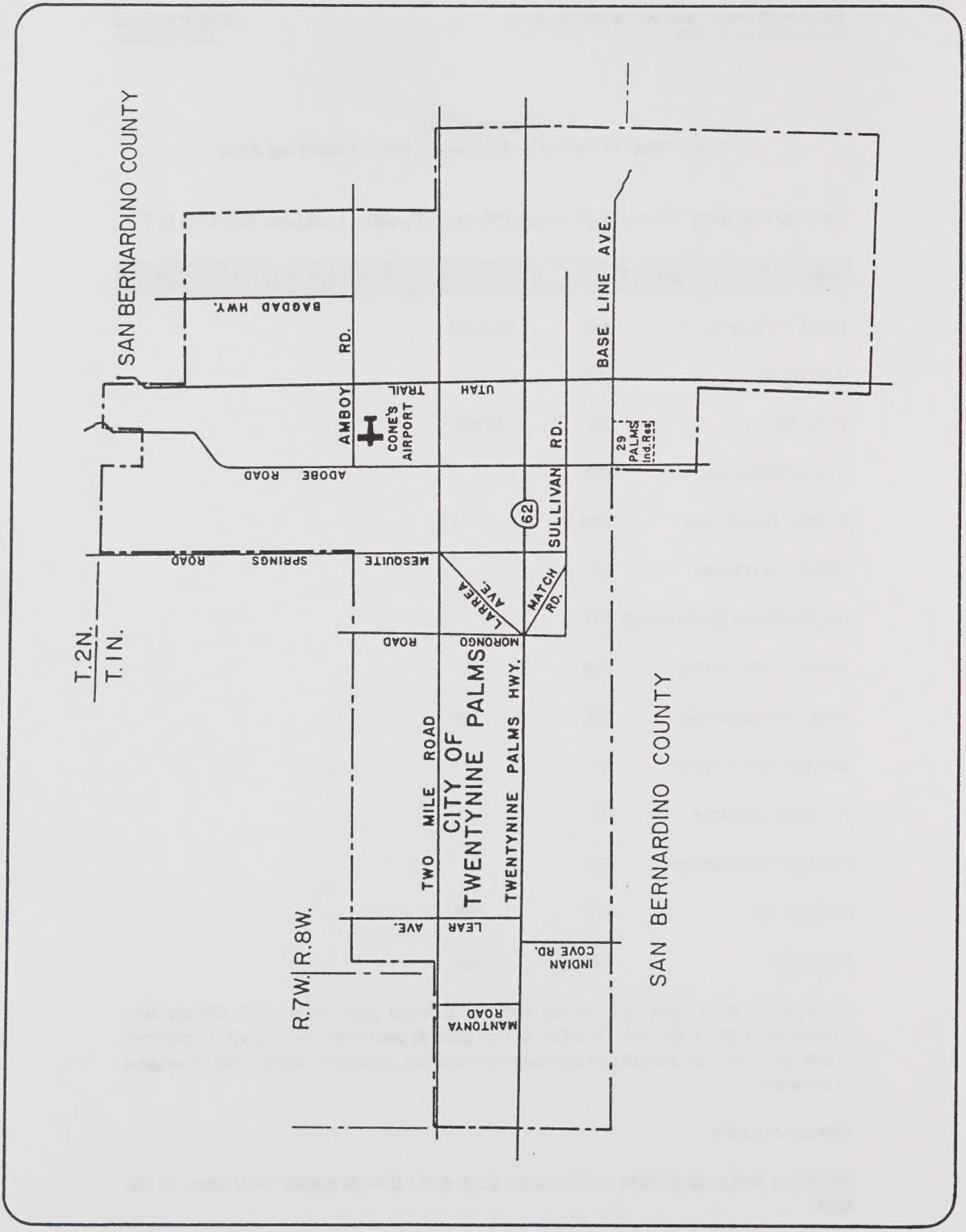
General Location: Twentynine Palms (RSA 33) **Specific Location:** See Map III-TT

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	160,847	
Agriculture	AG		
Rural Living	RL	46,011	
Single Residential	RS	1	
Multiple Residential	RM	1	
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS	33	
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN	302	
Floodway	FW	834	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
TWENTYNINE PALMS SPHERE OF INFLUENCE MAP III-TT

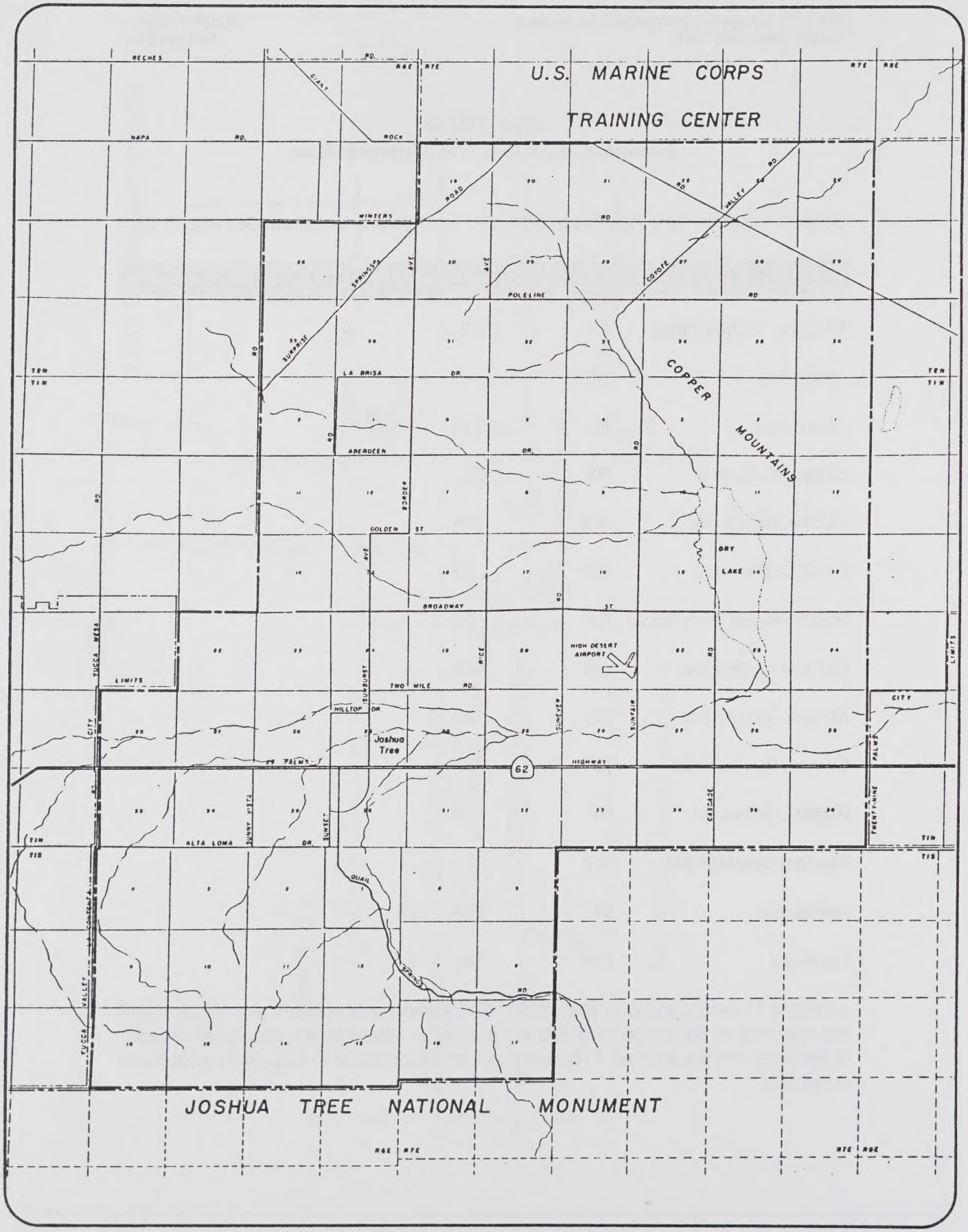
SCALE-MILES
0 1/2 1 2

Figure III-39
Summary of Joshua Tree Planning Area

General Location: Morongo Basin (RSA 33) **Specific Location:** See Map III-UU

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	8,120	
Agriculture	AG		
Rural Living	RL	34,740	
Single Residential	RS	8,833	
Multiple Residential	RM	989	
Office Commercial	CO	64	
Neighborhood Commercial	CN	33	
General Commercial	CG	359	
Service Commercial	CS	88	
Community Industrial	IC	350	
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN	261	
Floodway	FW	128	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN

JOSHUA TREE COMMUNITY PLAN PORTION

MAP III - UU

NORTH

0 1 2 3 4 5 6 7 8 FT.

SCALE
(IN THOUSANDS)

Joshua Tree Policies/Actions

Natural Resources

Open Space/Recreation/Scenic

- Protect and improve the scenic environment adjacent to the designated scenic routes.
- Minimize hillside grading.
- Screen all outside storage.
- Minimize the amount of vegetation removal.

Man-made Resources

Land Use/Growth Management

- Locate high density residential development near principal transit routes and major thoroughfares.
- Discourage extensions of urban uses into areas where services and facilities are not available.
- Allow residential subdivisions under one dwelling unit per 2 1/2 acres, only where there are adequate public services.
- Require all residential subdivisions of less than 2 1/2 acre lot sizes to meet all standard requirements such as paved streets and full utilities.
- Allow a range of residential lot sizes from 8,000 square feet to one (1) acre in size in the urban areas.
- Locate public services and facilities in a manner so as to encourage urban development in and/or around Twentynine Palms Highway, north of Alta Loma Drive, the proposed College/Panorama Heights area, the hospital, the downtown core and the Sunfair area.
- Discourage the extension or promotion of strip commercial development patterns by providing cluster development alternatives.
- Provide for the development of community and regional shopping areas on large parcels where services and adequate vehicular access is present or planned.
- Encourage commercial land uses near or at intersections of the arterial streets entering Twentynine Palms Highway.

- Establish standards for development of commercial areas.

- Where appropriate, locate neighborhood centers at or near the intersection of arterial streets.

- Establish new neighborhood centers in residential and rural areas as the need exists, under the provisions of the General Plan.

- Whenever possible, utilize the more restrictive Commercial Land Use Districts as a transitional buffer between Commercial and Residential uses.

- Locate Commercial Districts in areas that divert commercial traffic away from residential streets.

- General Commercial Districts should not be within a frontage of an existing occupied residential block.

- Limit vehicular access to Twentynine Palms highway by requiring driveways to be combined and spaced in accordance with accepted traffic engineering practices.

- New industrial development shall be compatible with the desert environment and surrounding land uses.

- Prohibit industrial uses with excessive water requirements.

- Establish industrial areas in close proximity to commercial or residential districts with sites containing sufficient land area to allow for substantial setbacks, buffering or other screening methods.

- The traffic load on Twentynine Palms Highway should be minimized. This may be accomplished by:

  - Minimizing the number of additional streets and direct access points to the Twentynine Palms Highway.

  - Providing for additional alternative routes in the community by which local traffic depending on Twentynine Palms Highway may be reduced.

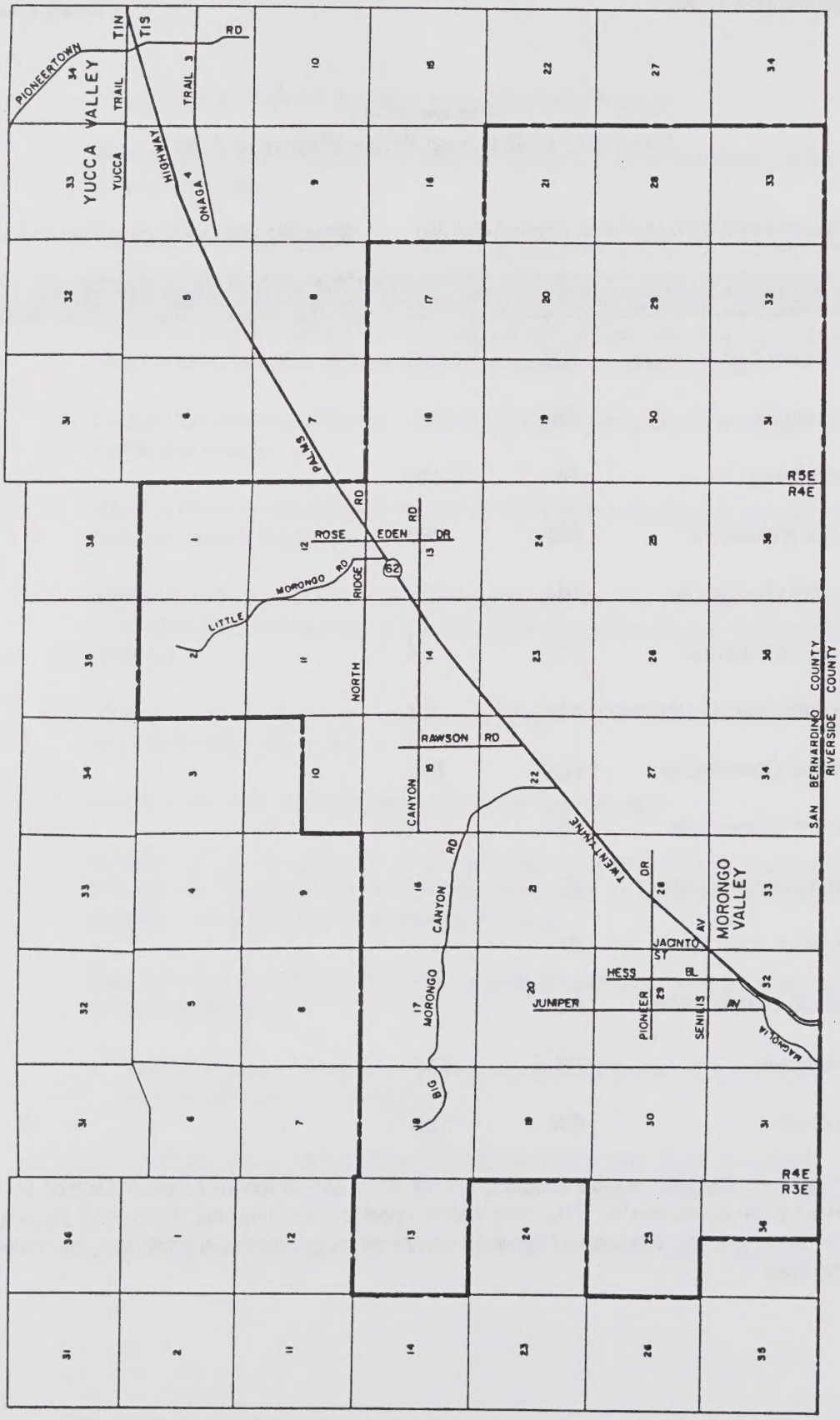
  - Paving Alta Loma to connect with the Community of Yucca Valley.

Figure III-40
Summary of Morongo Valley Planning Area

General Location: Morongo Basin (RSA 33) **Specific Location:** See Map III-VV

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	17,645	
Agriculture	AG		
Rural Living	RL	6,426	
Single Residential	RS	962	
Multiple Residential	RM	203	
Office Commercial	CO	14	
Neighborhood Commercial	CN	28	
General Commercial	CG	127	
Service Commercial	CS	.7	
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	PB	266	
Floodway	FW	128	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
MORONGO VALLEY COMMUNITY PLAN PORTION

NORTH
MAP III-VV

MILE .5 1
SCALE

Morongo Valley Policies/Actions

Natural Resources

Water

Because Morongo Valley is dependent on its underlying groundwater basin for both domestic water supplies and maintenance of surface flows and groundwater availability for the oasis at Big Morongo Canyon Preserve; because the Big Morongo Canyon Preserve provides valuable and irreplaceable habitat for plants and wildlife, including endangered species; and because Morongo Valley has no other sources of water than its groundwater; the County shall:

- Design and implement a groundwater monitoring program for Morongo Valley to monitor groundwater levels and quality for the long-term protection of water for domestic uses and biological resources in the Big Morongo Canyon Preserve.

- The program shall be prepared in consultation with representatives of the Nature Conservancy, the Bureau of Land Management, Southern California Water Company, Morongo Valley Community Services District, County Service Area 70, County Departments of Environmental Health Services and Land Management, County Flood Control District and the Community.

- The program shall be designed to establish a baseline condition and current trend of groundwater in the basin. The design shall include recommendations for the establishment, operation, funding and administration of the monitoring program. The design shall include a schedule and budget for all phases of the program from establishment through continued operation.

- Design of the monitoring program shall begin immediately, and implementation of the program shall be accomplished as soon as feasible once the program design is completed.

Should the data from the groundwater monitoring program indicate depletion of groundwater levels below that determined in the program design to be necessary to sustain both domestic uses and the oasis, the County will decline to issue building permits for projects that will further affect the groundwater resources in the valley unless and until an adequate groundwater mitigation strategy (e.g., alternative water supply, conservation, groundwater recharge, conjunctive use, etc.) has been implemented.

Man-made Resources

Land Use/Growth Management

- The Board of Supervisors determines that the major commercial areas shall be established in the urbanized cores. This can be accomplished by encouraging General Commercial land uses near or at the intersections of the arterial streets entering Twentynine Palms Highway and prohibiting highway strip commercial development beyond the urbanized community core areas.

- Allow increased urban densities contingent upon the provision of adequate roads and services within the Palm Wells neighborhood core area in Section 14. Allow incremental urban expansion north of the existing mobilehome park in portions of Section 22 and 23 of the Palm Wells area at such time as adequate public services can be provided and flood control problems mitigated.

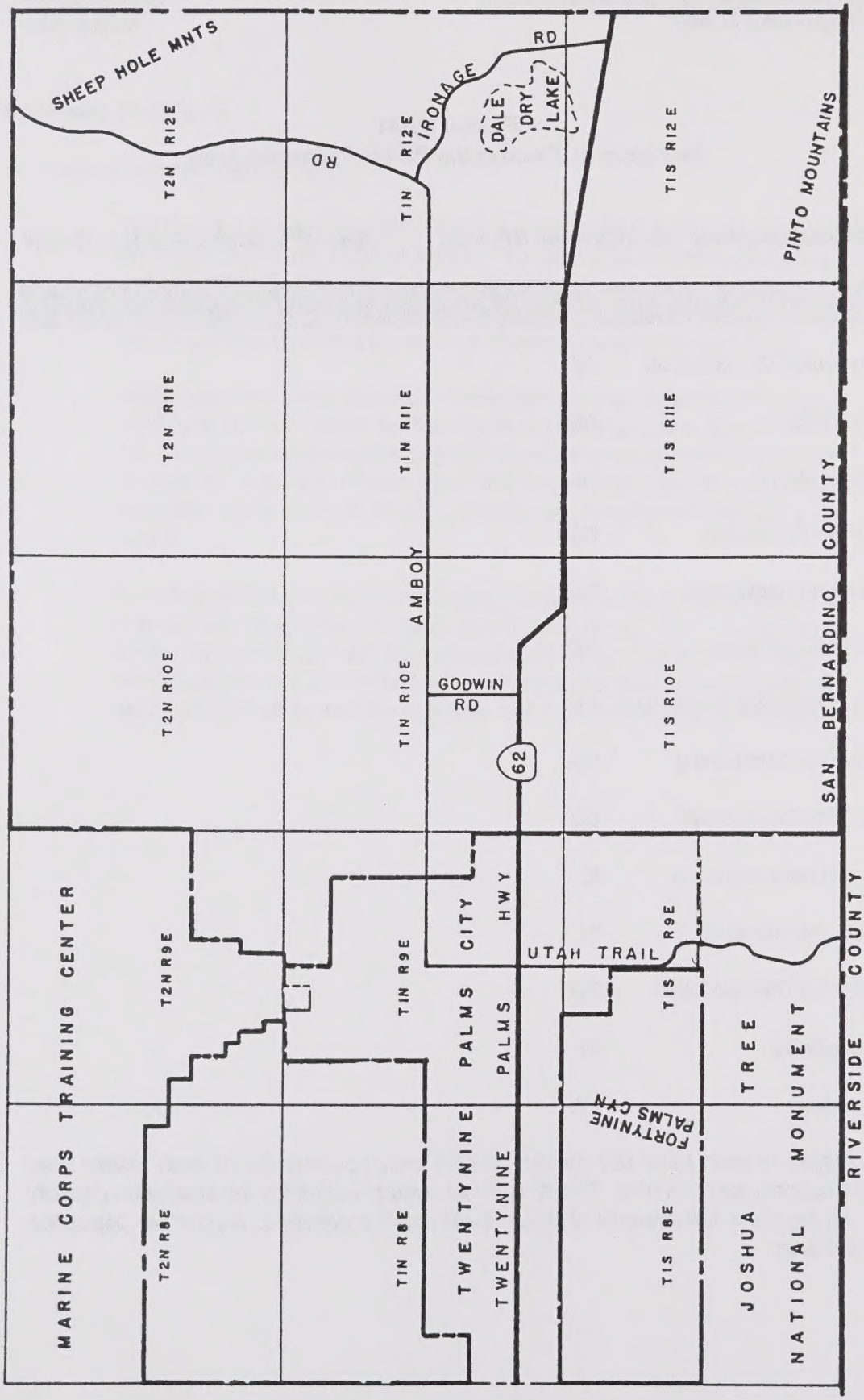
- Sufficient land for commercial shopping facilities needs to be allocated in a manner that will enhance the rural community character. This may be accomplished by utilizing General Neighborhood and Office Commercial Districts in the Covington Park and Palm Wells core areas and allowing small neighborhood commercial centers in residential and rural areas of the community.

Figure III-41
Summary of Twentynine Palms Planning Area

General Location: Morongo Basin (RSA 33) **Specific Location:** See Map III-WW

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
TWENTYNINE PALMS COMMUNITY PLAN PORTION

NORTH
MAP III-WW

MILE 1 2 3
SCALE

Twentynine Palms Policies/Actions

Natural Hazards

Wind and Erosion

- Soil conservation and stabilization techniques and requirements should be observed for all types of development and at all stages of development.
- Require prompt revegetation of land disturbed during construction.
- Encourage desert windbreaks at appropriate locations prior to extensive clearing of land for all uses.
- Encourage minimal clearance of desert vegetation.
- Adopt a Community Standard which primarily restricts agricultural uses to those required for domestic, on-site family use as opposed to commercial production.

Natural Resources

Water

- Limit new high-water consumption uses by restricting such uses in the land use districts.
- Require use of drought resistant landscaping and water-efficient irrigation systems for new development in the Plan area.
- Encourage use of nonpotable water for agricultural and industrial uses.
- Adopt a Community Standard limiting use of land for growing of alfalfa or other irrigated forage crops to that required to support domestic livestock for on-site family use only.

Open Space/Recreation/Scenic

- Assess and evaluate health and safety constraints and scenic resource impacts of potential residential development.
- Identify and designate for permanent open space those areas which have unstable soils, steep terrain, fault or flood hazards, and noise impacts.
- The County shall establish Resource Conservation or another appropriate land use designation to preserve scenic open space in the following locations: Campbell Hills, Harmony Acres, Chocolate Drop, Indian Cove, Sugar Bowl, and adjacent to Joshua Tree National Monument.

- Designate areas for low-density residential and rural development which have limited access to urban services.

Man-made Resources

Transportation/Circulation

- Require dedication of access rights on major and secondary arterials.
- Minimize curb cuts, cross-street traffic and encourage signalization on Highway 62.

Land Use/Growth Management

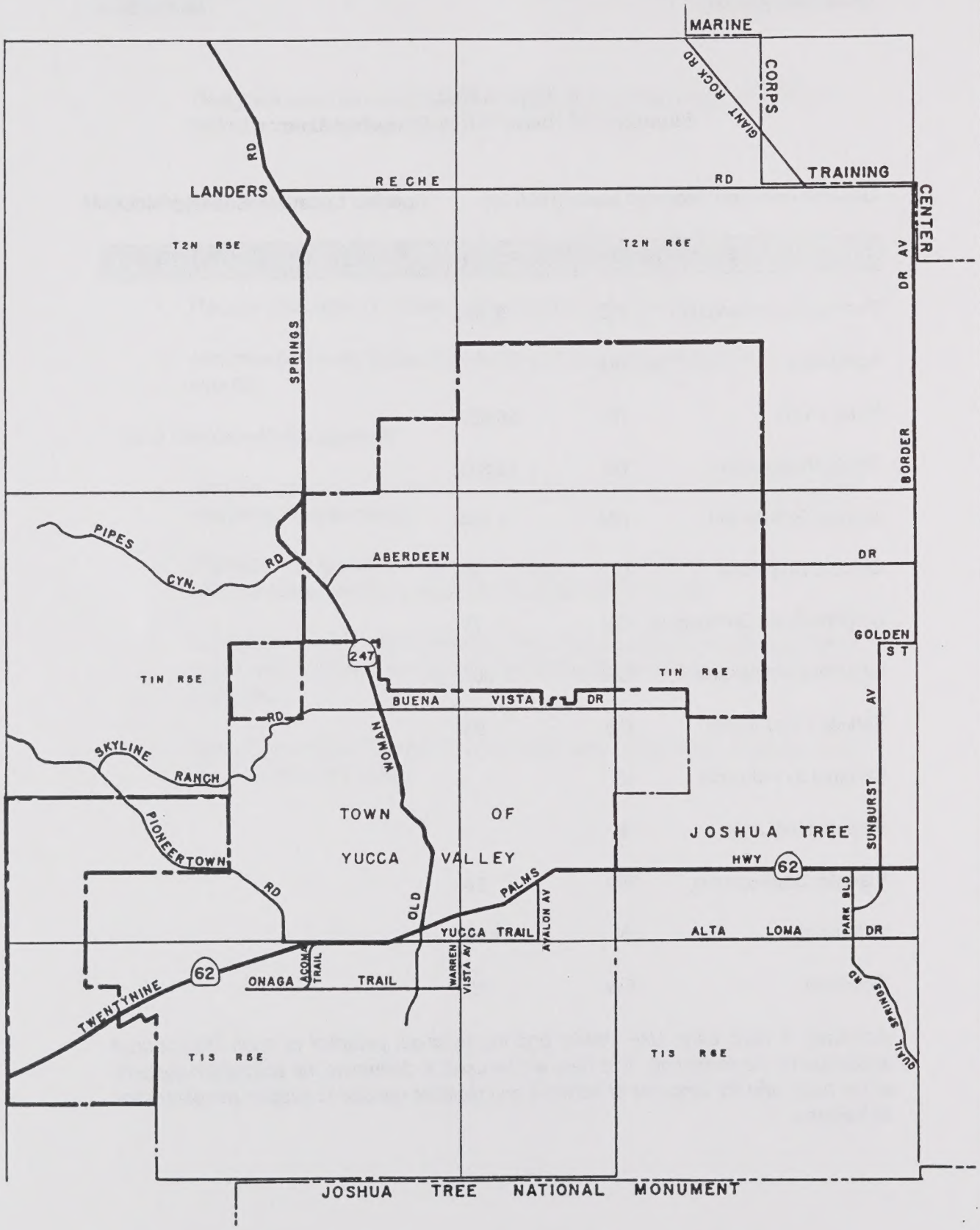
- Limit the locations of commercial land to that required to meet local residential and limited tourist needs.
- Prohibit commercial development along the access roads into Joshua Tree National Monument for a minimum distance of one (1) mile.
- Designate the CN district for neighborhood commercial uses within residential areas, with spacing of at least one-half mile between neighborhood commercial areas.
- Allow Convenience/Support Commercial uses along State Highway 62 to serve the traveling public.

Figure III-42
Summary of Yucca Valley Planning Area

General Location: Morongo Basin (RSA 33) **Specific Location:** See Map III-XX

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC	5,188	
Agriculture	AG		
Rural Living	RL	20,657	
Single Residential	RS	13,311	
Multiple Residential	RM	1,154	
Office Commercial	CO	51	
Neighborhood Commercial	CN	77	
General Commercial	CG	604	
Service Commercial	CS	95	
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD	34	
Institutional	IN	129	
Floodway	FW	85	

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.



SAN BERNARDINO COUNTY GENERAL PLAN
YUCCA VALLEY COMMUNITY PLAN PORTION

MAP III-XX

NORTH

MILE 1 2
SCALE

Yucca Valley Policies/Actions

Natural Resources

Open Space/Recreation/Scenic

- Minimize hillside grading.
- Prohibit off-site advertising signs within the scenic corridor.
- Limit the size, height and number of on-premises signs to those necessary for identification purposes.
- Screen all outside storage.
- Minimize the amount of vegetation removal.

Man-made Resources

Transportation/Circulation

- The Board of Supervisors determines that the traffic load on Twentynine Palms Highway should be minimized. This may be accomplished by minimizing the number of additional streets and direct access points to the Twentynine Palms Highway, providing for additional alternative routes in the community by which local traffic depending on Twentynine Palms Highway may be reduced, and by paving Yucca Trail to connect with the community of Joshua Tree.

Land Use/Growth Management

- Establish residential lots between two and one-half (2-1/2) and five (5) acres in the mesa and southerly areas of the community.
- Require large lots in the hill and steep slope areas.
- Provide sufficient land for regional, community and neighborhood shopping facilities to serve the projected needs of the community and the Morongo Basin subregion. This may be accomplished by establishing areas for Service Commercial in the vicinity of Twentynine Palms Highway and Old Woman Springs Road; establishing General Commercial areas to adequately serve the commercial needs of the community; and where appropriate, buffer heavy commercial uses with Neighborhood and Office Commercial uses.
- The Board of Supervisors further determines that convenience shopping facilities should be provided in appropriate locations to serve the needs of the neighborhood areas. This may be accomplished by locating neighborhood

centers at the intersection of arterial streets and establishing convenience commercial centers in residential neighborhoods when necessary.

- The Board of Supervisors further determines that further extensions of highway strip commercial development should be discouraged. This can be accomplished by encouraging community commercial land uses near or at the intersections of the arterial streets entering Twentynine Palms Highway and Old Woman Springs Road and by prohibiting highway strip commercial development beyond the urbanized community core area.

- Prohibit industrial uses with excessive water requirement.

LOWER COLORADO RIVER SUBREGIONAL PLANNING (RSA 34)

This subregion (see Map III-YY) is currently sparsely developed; the area is predominantly a resort, recreational and retirement community. The area's population increases significantly during the summer months and holidays.

The lack of infrastructure facilities in the area is the major constraint to development. There are no sewers, and although water supply is predicted to be adequate for future demand, there have been concerns over the high mineral contents of the area's water. Also, the existing circulation system often shows traces of congestion on holidays and summer weekends.

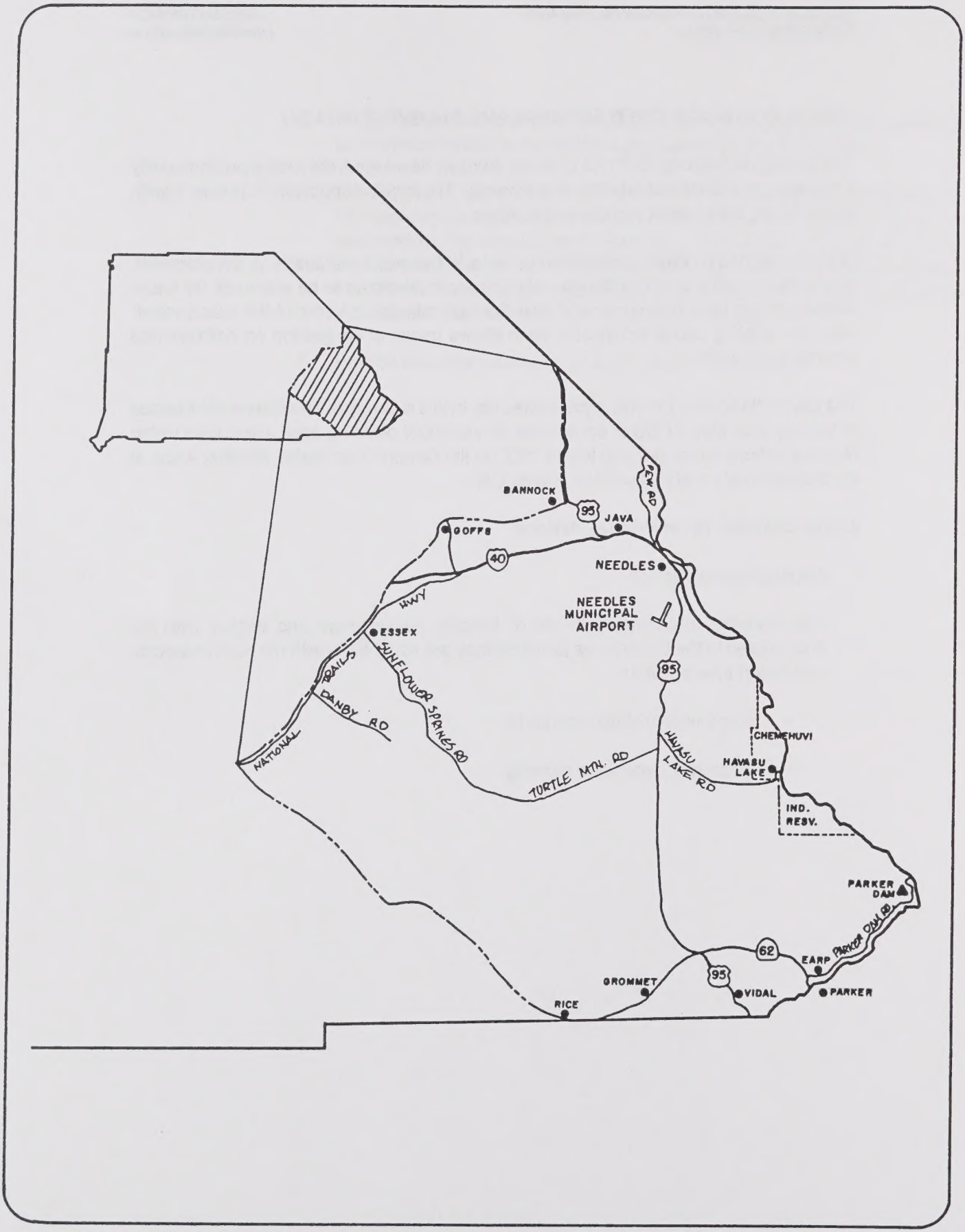
The City of Needles is the only incorporated city in this subregion. The sphere of influence of the city (see Map III-ZZ) is considered an individual planning area. Land area within Needles sphere is prefixed with letters "ND" on the General Plan maps. All other areas in the subregion are prefixed with the letters "CR".

Lower Colorado River Policies/Actions

Housing/Demographics

The following innovative methods of housing development and design shall be encouraged in the Desert area provided they are compatible with the rural character and desert environment:

- Single-wide mobilehome parks.
- Temporary dependent housing.



SAN BERNARDINO COUNTY GENERAL PLAN
REGIONAL STATISTICAL AREA 34

MAP III YY

NORTH

MILES 2 4 6 9
SCALE

Figure III-43
Summary of Needles (Sphere) Planning Area

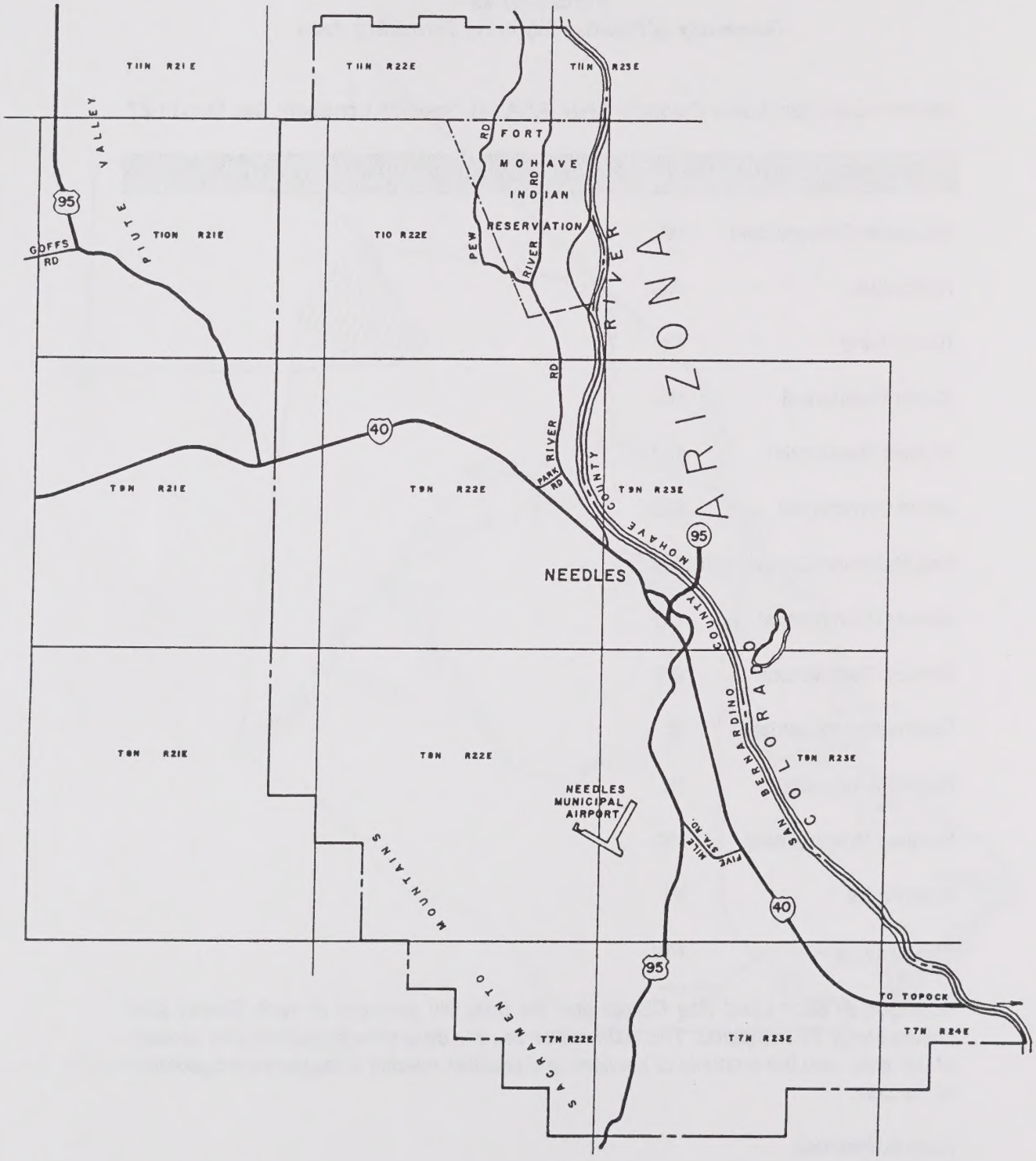
General Location: Lower Colorado River (RSA 34) **Specific Location:** See Map III-ZZ

LAND USE DESIGNATIONS		ACREAGE	BUILD-OUT POTENTIAL
Resource Conservation	RC		
Agriculture	AG		
Rural Living	RL		
Single Residential	RS		
Multiple Residential	RM		
Office Commercial	CO		
Neighborhood Commercial	CN		
General Commercial	CG		
Service Commercial	CS		
Community Industrial	IC		
Regional Industrial	IR		
Planned Development	PD		
Institutional	IN		
Floodway	FW		

Acreages in each Land Use District and the build-out potential of each District shall subsequently be computed. This data will be used to determine the absorption capacity of the area, and the amounts of services and facilities needed to support the population of the area.

Special Policies

Sphere of influence policies (see Policies LU-9 and LU-10 in section II-D) apply in this area.



SAN BERNARDINO COUNTY GENERAL PLAN
NEEDLES SPHERE OF INFLUENCE PORTION

MAP III ZZ

NORTH

MILE 1 2 3
SCALE

SECTION IV

Glossary

GLOSSARY ITEMS

GLOSSARY ITEMS

A

Abatement-

The elimination or reduction of something that is a threat to the public health, safety and welfare.

ADT-

Average Daily Traffic. The amount of traffic that passes any given intersection within a 24 hour time frame.

Agricultural Preserve-

Land reserved, through zoning, to be used strictly for farming, ranching, dairy farms, etc.

Airport Land Use Commission (ALUC)-

A State-authorized body existing in each county having the responsibility to develop plans for achieving land use compatibility between airports and their environs.

Air Installation Compatible Use Zone (AICUZ)-

Department of Defense programs established by Department of Defense Instruction 4165.57 "Air Installation Compatible Use Zones", November 8, 1977.

Alluvial-

A general term for the sediments laid down in river beds, floodplains, lakes, fans at the foot of the mountain slopes, and estuaries during relatively recent geologic times.

Alquist/Priolo Special Studies Zone Act (APSSZA)-

Forms the basis of the mapping of faults. The APSSZA was enacted in December 22, 1972 and went into effect March 7, 1973, and provides for "the adoption and administration of zoning laws, ordinances, rules and regulations by cities and counties in implementation of the General Plan". (Public Resources Code Section 2621.5). The purpose of the APSSZA is to prohibit the location of most structures for human occupancy across the traces of active faults and to mitigate, thereby, the hazard of fault rupture. As a result of the Act, the State Geologist was required to identify active faults in California and designate "special studies zones" 500 feet from major active faults and 200-300 feet from well-defined minor faults. "Active fault" for the purpose of the APSSZA was defined as one that has had activity within the last 11,000 years.

Annex-

To incorporate an area/territory into a city, etc.

Arterial-

A main highway that is a through street.

AQMP-

Air Quality Management Plan. A comprehensive control program designed to bring the South Coast Air Basin into compliance with all federal and state air quality standards.

Aquatic-

Growing or living in or on water.

Aquifer-

A geologic formation that stores, transmits, and yields significant quantities of water to wells and springs.

B

Biodegradable-

Capable of being broken down, especially into innocuous products by the action of living things.

Biomass-

Plant materials and animal waste used as a source of fuel.

Biotic-

Caused or produced by living beings.

BLM-

Bureau of Land Management. A federal organization within the Department of Interior.

Blue Line Stream-

1) Any stream shown as a solid or broken blue line on 7.5 Minute Series quadrangle maps prepared by the U.S. Department of the Interior Geological Survey.
2) Any creek, stream, or other flowing water feature indicated on USGS quadrangle maps by symbols defined as "intermittent stream," "intermittent river," "disappearing stream," "perennial stream," "perennial river," "small falls," "small rapids," "large falls," or "large rapids," with the exception of man-made watercourses.

Buffer-

An area of land separating two distinct land uses that acts to soften or mitigate the effects of one land use on another.

Building Coverage-

The alterations of a lot by the creation of surface area upon which a building rests. The percentage surface coverage does not include roadways, swimming pools, tennis courts, solar collection devises or related apparatus.

Building Intensity Standards-

The bulk and concentration of physical development of uses permitted in a district. Lot coverage (LC), Floor Area Ratio (FAR), Open Space Ratio (OSR), Height, Landscape Volume Ratio (LVR), Building Volume Ratio (BVR), etc., are some examples of measures of Building Intensity.

C

Caliche-

A crust of calcium carbonate that forms on the stony soil of arid regions.

California Environmental Quality Act (CEQA)-

Statutory document that requires the assessment of projects for environmental effects and establishes procedures for preparing and processing environmental documents.

Chlorofluorocarbon-

Chemical compound containing chlorine, carbon and fluorine, used in lubricants, refrigerants, resins and plastics (such as those used at fast food places).

Class III Waste Sites-

Landfills for non-hazardous solid waste.

Clear Zone-

Defined in Federal Aviation Regulations, Part 152.9(b): an area at ground level, extending beyond the runway primary surface and underlying the approach surface; these zones, which include all of the area out to a point where the approach surface reaches 50 feet above ground level, are presented in detail on the Airport Layout Plan for each airport. The federal government requires that the airport owner have an "adequate property interest" in the clear-zone area in order that the requirements of FAR Part 77 can be met and the area protected from future encroachments. Adequate property interest may be in the form of ownership in fee simple (the most preferred) or lease (provided it is long term) or any other demonstration of legal ability to prevent future obstructions in the runway clear zone.

Collocation-

Arranging or placing together.

Community Service Districts (CSD)-

County districts that are self-governed.

Composting-

A controlled microbial degradation of organic wastes yielding a safe and nuisance free product.

Cogeneration-

The sequential generation of electrical energy and low-grade heat from the same fuel.

County-

Used both to describe the geological area of San Bernardino County and the governmental entity of the County of San Bernardino.

County Service Areas (CSA)-

County areas governed by the Board of Supervisors.

Countywide-

In all geographical areas of the County.

D

Dam Inundation-

The release of flood waters to downstream areas caused by failure of dam.

db(A), A-Weighted Sound Pressure Level-

The sound pressure level, in decibels, as measured on a sound level meter using the A-weighting filter network. The A-weighting filter deemphasizes the very low and very high frequency components of the sound in a correlation with subjective reactions to noise.

dB, Decibel-

A unit for expressing the relative intensity of sounds on a scale from zero for the average least perceptible sound to about 130 for the average pain level.

DEHS-

County Department of Environmental Health Services.

Development Code-

A set of land use regulations adopted by San Bernardino County in conformance with the General Plan. All actions and undertakings necessary for project planning, land acquisition, demolition or construction of a project must conform with the County Code prior to approval. The Development Code is Title 8 of the San Bernardino County Code.

Discourage-

To advise or persuade to refrain from.

Discretionary Action-

An action that requires the exercise, and judgement or deliberation of a public agency or body deciding to approve or disapprove a particular activity.

Domestic water-

Water supplied to individual dwellings and other land uses which is suitable for drinking.

Dwelling unit-

Any building or portion thereof, including a mobilehome or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and sanitation as required by the Development Code and UBC, for not more than one family.

E

Earthquake, great-

Richter magnitude above eight.

Earthquake, major-

Richter magnitude above six.

Earthquake, minor-

Richter magnitude below four.

Earthquake, moderate-

Richter magnitude four through six.

Encourage-

To stimulate or foster a particular condition through direct or indirect action by the private sector or government agencies.

Enhance-

To improve existing conditions by increasing the quantity or quality of desired features.

Environmental Impact Report (EIR)-

An environmental impact report is the public document used by a governmental agency to analyze the significant environmental effects of a proposed project, to identify alternatives and to disclose possible ways to reduce or avoid possible environmental damage.

Environmental Protection Agency (EPA)-

Established as part of the National Environmental Protection Act of 1970.

Erosion-

A group of processes whereby earth or rock material is loosened or dissolved and removed from any part of the earth's surface.

Estimate-

A fairly accurate approximation of current demographic information (population, housing and employment) based on up-to-date data (building permits, etc.)

Estuaries-

Water passages where the tide meets a river current.

F

FAR Part 77-

Establishes standards for determining obstructions in navigable airspace, sets forth requirements for notice of proposed construction or alteration and provides for aeronautical studies of obstructions or air navigation.

Fault-

An earth fracture or zone of fracture along which the rocks on one side have been displaced in relation to those of the other.

Fault, Active-

A fault along which surface displacement has occurred during Holocene time and is associated with one or more of the following: a recorded earthquake with surface rupture, fault creep or slippage, and/or displaced survey lines.

Fault,Inferred-

Fault where there is no physical evidence but is believed to exist.

Fault rupture-

Ground break along the fault line during an earthquake.

Feasible-

Capable of being done, executed, or managed successfully from the standpoint of the physical and/or financial abilities of the implementor(s).

Feasible, Economically-

Capable of being implemented with the funding or financing available to the implementor(s). May be more expensive than other feasible alternatives, but is achievable within the implementor's financial constraints.

Feasible, Technically-

Capable of being implemented because the engineering, industrial, mechanical, or application technology exists. Some technically feasible alternatives may be more or less expensive than others.

Federal Aviation Administration (FAA)-

A federal agency charged with regulating air commerce to promote its safety and development, encouraging and developing civil aviation, air traffic control, and air navigation and promoting the development of a national system of airports.

Federal Aviation Regulations (FAR)-

Regulations issued by the FAA to regulate air commerce; issued as separate "Parts", e.g., Part 77.

Federal Emergency Management Agency (FEMA)-

Federal agency responsible for administering the National Flood Insurance Program.

Fiber Optics-

Thin, transparent fibers of glass or plastic encased in a cable and used to transmit telephone calls, computer data, or other communication with pulses of laser light; also called lightwave telecommunications.

Fire flow-

The required rate of flow times duration for fire protection, varies according to density and type of development.

Flood Hazard Areas-

Areas in an identified flood plain.

Flood plain-

The relatively flat area or lowlands adjoining the channel of a stream or watercourse and subject to overflow by floodwaters.

Floodway-

The channel of a river or other water course and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "Regulatory Floodway."

Floor Area Ratio (FAR)-

A land use intensity measured as a ratio derived by dividing the total floor area of a building by the lot area on which it is located.

Forestry-

The commercial harvesting of standing timber for the purpose of producing lumber or wood products.

Fuel break-

A wide strip of land on which vegetation has been permanently modified to a low volume for purposes of breaking up vast exposures of vegetation and to provide access to fire suppression forces.

G

Geothermal-

Utilizing the heat of the earth's interior.

Greenbelt-

An area experiencing specific measures designed to mitigate fire, flood and erosion hazard including fuel management, land use planning, and development standards. More traditionally an irrigated landscaped buffer zone between development and wildlands, usually put to additional uses, e.g., golf courses, park, etc.

Groundwater-

Water beneath the earth's surface, accumulating as a result of recharge and serving as the source of springs, wells, etc.

Groundwater basin-

A ground water reservoir, together with all the overlying land surface and the underlying aquifers that contribute water to the reservoir. In some cases, the boundaries of successively deeper aquifers may differ and make it difficult to define the limits of the basins.

H

Habitat

The physical location or type of environment or setting in which an organism or biological population lives or occurs.

High Rate of Water Consumption (Agricultural)-

A rate of agricultural water consumption, as defined by the University of California, Riverside, Cooperative Extension, which exceeds three acre-feet of water per acre per year. Agricultural crops which consume more than this amount of water are considered to exhibit a high rate of water consumption.

Hydrocompaction-

Settling and hardening of land due to application of large amounts of water for irrigation.

Hydropower-

The production of electricity by water power.

I

Identified Fault-

Fault that can be physically recognized.

Impervious-

Not allowing entrance, passage, or percolation of water; nonporous.

Income Levels-

Income categories are defined with respect to the area or county median income and are adjusted for household size.

Income, Very Low-

Less than 50 percent of the area or county median income.

Income, Low-

Between 51 percent and 80 percent of the county median income.

Income, Lower-

Less than or equal to 80 percent of the county median income (i.e., combination of very low income and other low income).

Income, Moderate-

Between 81 percent and 120 percent of the county median income.

Income, Above Moderate-

Above 120 percent of the county median income.

Incorporated City-

Area(s)/neighborhood(s) joined together for the purpose of self-government.

Inert-

Deficient in active properties, lacking chemical or biological action.

Infilling-

Development of vacant or underutilized parcels within urban areas.

Infrastructure-

The essential utilities and services necessary to support development, e.g., sewer, water and roads, etc.

Insolation-

Solar radiation that has been received.

Intended Use-

A brief description of uses that may be permitted in a Land Use District. A complete description of use categories and listing of uses permitted in each District are contained in the Development Code, Title 8.

J

Job/Housing Balance-

The ratio of the number of jobs to the number of households within a jurisdiction.

Joint Utility Management Plan-

A plan developed for San Bernardino County to minimize the adverse impacts associated with the siting of major utilities and transmission line corridors, ensure citizen and local government involvement in energy related matters, conserve energy while controlling peak load demand, and encourage the use of energy resources that have minimal impact on the environment.

L

Landfill-

A disposal site employing a method of disposing of solid wastes on land without creating nuisances or hazards to public health or safety, by utilizing principles of engineering to confine the wastes to the smallest practical area to reduce them to the smallest practical volume, and to cover them with a layer of suitable cover materials at specific designated intervals (see also Sanitary Landfill).

Landslides-

The downward and outward movement of slope-forming earth materials under the influence of gravity.

Land Uses, critical-

Hazardous facilities that are extremely vulnerable and could threaten health and safety in case of disaster (i.e., nuclear reactors, large dams, plants manufacturing or storing explosives or toxic materials).

Land Uses, essential-

Facilities that would be required to maintain the public health and safety following a disaster (i.e., hospitals, police, fire, and important utility, communication and transportation elements).

Land Uses, high occupancy-

Structure sheltering large concentrations of people (i.e., schools, churches, civic buildings, theaters, large hotels, jails, dormitories, high-rise apartments or office buildings, regional shopping centers).

Ldn, Day-Night Noise Level-

The average equivalent A-weighted sound level during a 24 hour day obtained by adding ten decibels to the hourly noise levels measured during the night (10 pm to 7 am). In this way Ldn takes into account the lower tolerance of people for noise during nighttime periods.

Legal Access-

Access required to subdivisions of land resulting in lots of twenty (20) acres or less shall mean one of the following:
1) A dedicated right-of-way.
2) A dedication to the County of San Bernardino and to the public in general, an easement for public road, County highway and public utility purposes, of a width as established by the Circulation Element of the County General Plan. The easement and road constructed thereon shall not become County highway until and unless the Board of Supervisors of the County of San Bernardino, by appropriate resolution, has caused said road to be accepted into the County road system.
3) An existing traveled way, that is substantially in compliance with County road standards, where a prescriptive right by user has been established for public use by court decree.

Level of Service-

A transportation term that indicates how traffic is flowing at a given intersection. An "A" level of service is one where there is no constriction in traffic movement while a level of service "F" is gridlock.

Lined (Channel)-

A channel which has been provided with an erosion resistant treatment on its banks and bottom which entirely seals the original surface. Concrete is most commonly used to produce a lined-channel, although other techniques using alternative measures can also achieve an impermeable surface.

Liquefaction-

A process by which a water saturated sand loses coherence when shaken. Involved in the collapse of sand grains into intergranular voids which induces an increase in pore pressure and loss of strength. This loss of strength leads to a quicksand condition in which objects can either sink or float depending on their density.

Local Agency Formation Commission (LAFC)-

A State agency with the responsibility and authority to approve or deny (with or without modification) all proposals for the establishment of cities and special districts, reorganization or dissolution of them, and/or proposals to annex. The LAFC must also establish a sphere of influence for cities and special districts.

Lot Coverage-

A measure of intensity of land use which represents the portion of a site that is impervious (i.e., does not absorb water). This portion consists of all areas covered by buildings, parking structures, driveways, roads, sidewalks, and any areas of concrete asphalt. In the case of lumberyards, areas where lumber is stored also constitute impervious surfaces.

M

Maintain-

To keep in an existing state. (See "Preserve.")

Man-made Watercourse-

Any canal, flume, aqueduct, or conduit designed, constructed, or improved by man for the purpose of carring water for municipal or agricultural use. (Compare to "Natural Drainage Course" and "Watercourse.")

Master Environmental Assessment (MEA)-

The MEA will summarize and quantify the conditions and trends to provide an overall assessment of the County's current physical environment. It is intended to analyze the possible effects that developments may have on the environment and how the detrimental effects might be lessened or eliminated.

Mature Tree or Vegetation-

Any tree or plant which has reached at least 75 percent of its maximun height or size, unless otherwise defined by a qualified biologist or arborist.

May-

That which is permissible, but not required. (Compare to "Shall.")

Mining-

The act or process of extracting mineral resources, such as minerals, metals, ores, sand, or aggregates, from the earth, either at or below the surface.

Ministerial-

A governmental decision involving little or no personal judgement by the public official as to the wisdom or manner of carrying out the project. The public official merely applies the law to the facts as presented but uses no special discretion or judgement in reaching a decision. A ministerial decision involves only the use of fixed standards or objective measurements and the public official cannot use personal, subjective judgement in deciding whether or how the project should be carried out.

Mitigation-

Necessary steps taken to lessen potential impacts of development or actions on the environment.

Memorandum of Understanding (MOU)-

A mutual agreement between parties.

N

National Flood Insurance Program (NFIP)-

A program for subsidizing flood insurance that is not privately available for properties subject to flood hazard.

Natural Drainage Course (NDC)-

A flow path containing a defined bed, and banks or channel which conducts drainage flows overland.

Natural State-

The condition existing prior to development.

Noise Contour-

A line drawn about a noise source indicating constant levels of noise exposure. Noise contours represent lines of equal noise exposure just as the contour on a topographic map represent lines of equal elevation. Ldn is the metric utilized herein to describe community exposure to noise.

Noise-Sensitive Land Uses-

Noise-sensitive land uses include, but are not limited to, residences, schools, libraries, hospitals, churches, offices, hotels, motels, and outdoor recreational areas. These typify land uses where suitability is restricted by intrusive noises. Hence, they are termed "noise-sensitive." Noise-sensitivity factors include interference with speech communication, subjective judgement of noise acceptability and relative noisiness, need for freedom from noise intrusion, and sleep interference criteria. The Land Use

Element of the General Plan provides a description of the residential areas throughout the County and is considered the source for the inventory of noise-sensitive areas.

Nonpotable-

Not suitable for drinking.

O

Omnitrans-

The public transportation system within the San Bernardino Valley operating under a Joint Powers Agreement providing service from Montclair in the westend, to Yucaipa in the east end.

Open Space-

Any of a variety of land uses which are characterized by, or which require for their function, a lack of development or intrusion by man-made uses or structures. Open space lands include any parcel or area of land which is essentially unimproved and devoted to an open space use for the purposes of:
1) the preservation of natural resources.
2) the managed production of resources.
3) outdoor recreation.
4) protection of public health and safety.
5) farming.
6) protection of scenic views and features.

Open Space Ratio (OSR)-

The proportion of a site that is required to remain as open space and may be used for recreation, agriculture and resource protection.

Overdraft-

A condition of a ground water basin that exists when the quantity of water withdrawn and consumptively used exceeds the amount of water recharging the basin over a period of time.

P

Package Wastewater Treatment Plant-

A wastewater treatment plant, generally capable of treating 1,500 to 200,00 gallons per day, which is installed to provide wastewater treatment for small communities, developments, mobilehome parks, shopping centers, industrial/commercial developments, and other similar uses, where conventional wastewater collection/treatment systems are nonexistent or too costly to install and operate.

Park and Ride-

A voluntary system where participants drive to a central location in order to carpool or gain access to public transportation to another location.

Peakload water supply-

The sum total of required fire flow, operational daily consumption and emergency storage.

Percolation-

Movement of water through a porous substance, as through soils of a spreading basin.

Perennial-

Present at all seasons of the year.

Physical Access-

At minimum, a roadway which is graded to County road standards on parcels, or remainder parcels, of twenty (20) acres or less.

Planned Residential Development (PRD)-

The PRD is similar to a PUD but consists of 500 or fewer residential dwelling units and no other land uses.

Planned Development (PD)-

A large integrated development consisting of residential, commercial or industrial uses, or a mixture of such uses and associated ancillary uses and structures, that is situated on one or more contiguous parcels or noncontiguous parcels separated solely by a road or other right-of-way or easement; and that is planned and developed as a unified project within a single development operation or series of development operations in accordance with a detailed comprehensive development plan.

Playa-

Flat floored bottom of an undrained desert basin that becomes, at times, a desert lake.

Police Powers-

Reserved to the States by the Federal Constitution and delegated to cities and counties through California Constitution; it is the authority to create and enforce ordinances and regulations that are not in conflict with general laws in order to promote the health, safety, morals and general welfare of the public.

Population Density-

The number of people in a given area. The number may be obtained by multiplying the number of dwellings per acre by the number of residents per dwelling.

Potable-

Suitable for drinking.

Preserve-

To keep safe from destruction or decay; to maintain or keep intact. (See "Maintain.")

Prime Agriculture lands-

Land that is in one of the following categories:
1) Rated as Class I or Class II in the Soil Conservation Service land use capability classifications.
2) Rated 80 through 100 in the Storie Index Rating.
3) Supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.
4) Planted with fruit or nut-bearing trees, vines, brush or crops which have a non-bearing period of less than five years and which will normally return, during the commercial-bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars per acre.
5) Returned from the production of unprocessed agricultural plant products an annual gross value of not less than two hundred dollars per acre for three of the previous five years.

Projection-

Mathematical calculations into the future based on current trends.

Public Roadway-

A roadway with public interest, but which may not necessarily be maintained by a public agency.

Public Use Airport-

Publicly or privately owned airport that offers the use of its facilities to the public without prior notice or special invitation or clearance, and that has been issued a California Airport Permit by the Division of Aeronautics of the California Department of Transportation.

Q

Quad Sheet, Quadrangle-

Quadrangle maps produced by the U.S. Geological Survey. Quad sheets are available in "7.5-minute series" and "15-minute series." Because the 15-minute maps are the same size as the 7.5-minute, but show an area four times larger (and therefore contain less detail), 7.5-minute maps should be used wherever possible to discern physical features.

R

Rapid Geological Change-

Alteration of the ground surface through such actions as landslides, subsidence, and faulting.

Raptor-

Bird of prey.

Recharge-

Flow to ground water storage from precipitation, infiltration from streams, and other sources of water.

Recycling-

The process by which salvaged materials become usable products.

Regional Water Quality Control Boards (RWQCBs)-

State established regional agencies which set legal treatment and discharge requirements for wastewater treatment plants.

Residuals Repository-

A hazardous waste facility which accepts only treated hazardous waste, meets all applicable federal and state regulations, and holds a hazardous waste facility permit.

Resource Recovery-

The reclamation or salvage of wastes for reuse, conversion to energy or recycling.

Responsible Authority-

Special districts, water agencies, cities, County service areas, or private water purveyors overlying the property with jurisdiction to deliver water to the property or properties.

RHNA-

Regional Housing Needs Assessment. The housing model developed by SCAG to allocate housing across the economic spectrum throughout the regions. (Previously RHAM-Regional Housing Allocation Model).

Riparian-

Related to or located on the bank of a natural water course.

Riparian Lands-

Riparian lands are comprised of the vegetative and wildlife areas adjacent to perennial and intermittent streams and surface or underground springs and seeps. Riparian areas may in some cases be delineated by the existence of plant species normally found near fresh water. Riparian lands as defined by the County do not include the flow ways of fully concrete-lined flood control channels.

S

Safety Area-

The area(s) in the vicinity of an airport in which land use restrictions are established to protect the safety of the public.

San Bernardino Associated Governments (SANBAG)-

An organization of elected officials from each jurisdiction within the County.

San Bernardino County Drainage Easement (SBCDE)-

A reservation over natural drainage courses or constructed drainage facilities which: (1) preserves land required to conduct storm flows safely through an area, (2) precludes encroachment of structures,and (3) precludes changes to the land form that may restrict or redirect storm flows. Further, the underlying fee owner is responsible for the maintenance and preservation of the natural drainage course or drainage facility.

Sanitary Landfill-

A disposal site employing an engineered method of disposing of solid wastes in a manner that minimizes environmental hazards by spreading, compacting to the smallest practical volume and applying cover material over all exposed wastes at the end of each operating day(see also Landfill).

SCAQMD-

South Coast Air Quality Management District. The regional agency responsible for air quality monitoring and enforcement of current rules. Also, responsible for preparation

of air quality plans submitted to EPA. The agency's governing board is composed of various locally elected officials.

Seiche-

An earthquake-generated wave within enclosed or restricted bodies of water (e.g., lakes and reservoirs).

Sensitive Species-

Any plant or animal listed by the State of California Natural Diversity Data Base as being state or federally listed as "special," "of concern," rare, threatened, or endangered, including species which are candidates for such listings.

Septage-

The sludge produced in individual on-site wastewater disposal systems such as septic tanks and cesspools.

Shall-

That which is mandatory, obligatory, or necessary. (Compare to "May.")

Sludge-

One of the by products of primary, secondary, and tertiary wastewater treatment; a semi-liquid mass composed of solids removed from sewage during wastewater treatment.

Solar Energy-

Energy derived from the sun's rays.

Solid Waste Management-

A planned program for effectively controlling the generation, storage, collection, transportation, processing and reuse, conversion or disposal of solid wastes in a safe, sanitary, aesthetically acceptable, environmentally sound and economical manner. It includes all administrative, financial, environmental, legal and planning functions as well as the operational aspects of solid waste handling, disposal and resource recovery systems necessary to achieve established objectives.

Southern California Association of Governments (SCAG)-

The six County region comprised of Los Angeles, Orange, Riverside, San Bernardino, Imperial and Ventura Counties.

Sphere of Influence (SOI)-

An area adjacent to a city which receives city services and/or has been identified for ultimate annexation, as adopted by the County's LAFC. Spheres of influence are identified according to State - defined criteria to ensure an efficient delivery of services and proper allocation of resources.

Spread-

Method of recharging a groundwater basin by diverting water to a highly-pervious area for percolation into the basin.

State Water Project water-

Water delivered via the aqueduct from northern California.

T

Telecommute-

To utilize the telephone and/or computers at home or at a satellite work station, thereby eliminating the need to commute long distances to work sites.

Telecommunications-

Communications at a distance utilizing equipment such as telephones, television, computer terminals, etc.

Temporary emergency shelters-

Shelters, typically provided by nonprofit organizations, which provide the immediate necessities of life to the homeless (food, clothing, sleeping facilities, mail, showers, etc.).

Tensiometer-

An instrument for measuring the moisture content of soil.

Tufa-

A porous rock formed as a deposit from springs or streams.

U

Undevelopable-

Specific areas where topographic, geologic, and/or surficial soil conditions indicate a significant danger to future occupants and liability to the County of San Bernardino.

Unlined (Channel)-

A channel which retains earthen banks or bottom, or which has been provided with an erosion resistant lining, such as riprap rock, which does not entirely seal the original channel surface. A channel which has been provided with an impervious treatment on its banks only is considered "unlined."

USGS-

The U.S. Department of Interior Geological Survey.

V

Viewshed-

The area within view from a defined observation point or from a vehicle on a County- or State- designated scenic highway.

W

Wastewater-

Includes sewage and all other liquid waste substances associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature.

Watercourse-

Natural or once-natural flowing (perennially or intermittently) water, including rivers, streams, and creeks. Includes natural drainage courses that have been channelized, but does not include man-made channels, ditches, and underground drainage and sewerage systems. (Compare to "Natural Drainage Course" and "Man-made Watercourse.")

Water Purveyor-

A domestic water supplier (Also called Responsible Authority).

Wildland-

Timber, range, watershed and brush lands not under cultivation and in which development is essentially nonexistent, usually rugged open space terrain.

Wildland/Urban Intermix-

The area of transition between urban development and usually rugged open space natural vegetation, generally centered about an abrupt slope change.

Wildlife-

Any combination of nondomesticated plant or animals living in the wild; usually native species.

Williamson Act-

"California Land Conservation Act, 1965" provides for establishment of agricultural preserves by offering owners tax benefits in exchange for keeping the land in agriculture for a certain period of time.

Williamson Act contracts-

Agreements between government and landowners to restrict land for agricultural use in exchange for reduced taxes.